

**M. 333**

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Subject  
Valuation of Securities Acquired from Lehman Brothers Inc.

#### 1. Introduction

Barclays entered into an Acquisition Purchase Agreement (APA) on 16 September which was amended in a Clarification Letter (CL) dated 20 September. As part of the acquisition, Barclays acquired securities with fair value of approximately \$40.7bn (the "Lehman Portfolio") on September 22, 2008 through a \$45bn reverse repurchase agreement ("Repo") which was ultimately busted and Barclays took possession of the collateral. Barclays also received additional securities with a fair value of approximately \$3.7bn (the "JPM Portfolio") on December 22, 2008 in accordance with a Settlement Agreement approved by the Bankruptcy Court between Barclays, JP Morgan ("JPM") and LBI's Trustee. As of December 31, 2008 Barclays had also identified additional unencumbered securities of \$0.7bn which management believe Barclays have legal title to under paragraph 1(ii) of the CL which references assets held in LBI clearance boxes at the time of "Closing" which were listed in Schedule B. Even though the securities in the clearance boxes were not the same as those specified on Schedule B, the language of clause (b) of the CL is clear, according to Barclays Capital's Global General Counsel that Barclays is entitled to securities in the LBI clearance boxes at the time of Closing regardless of whether they were listed on Schedule B.

#### 2. Date of Acquisition & Lehman Portfolio

Redacted

Consideration is often looked to as an indicator of the acquisition date. The \$45bn receivable from LBI under the Repo was waived on September 22, 2008, in accordance with the APA/CL, and therefore was effectively paid to LBI on that date. [Note that purchase consideration for the building at 745 7th Avenue and the \$250m cash amount per the APA were also wired to LBI on September 22, 2008].

From a control perspective, the Lehman Portfolio was received in Barclays custodian account as pledged collateral on September 18 and 19. Barclays could therefore sell or hedge the securities from the morning of September 22, 2008, as confirmed with John Rodefied (US Central Operations).

Therefore, the acquisition date is September 22, 2008. Legal title to the Lehman Portfolio passed to Barclays, the securities were received by Barclays and Barclays paid for the securities on September 22, 2008.

#### 3. JPM Portfolio & Additional Unencumbered Securities

The JPM Portfolio and the additional unencumbered securities (securities in LBI clearance boxes discussed in first paragraph above) are classified as receivables on the opening balance sheet and valued on the opening balance sheet as of dates other than September 22, 2008. See critical matter: "Recording of the Securities Received from JPM & Unencumbered Assets as Receivables"

#### 4. Basis of Measurement

Paragraph 37a of SFAS 141, Business Combinations, ("FAS 141") requires marketable securities to be recorded at fair value. The Lehman Portfolio was fair valued as of September 22, 2008.

As noted above, the JPM Portfolio and the additional unencumbered securities are classified as receivables on the opening balance sheet. The JPM Portfolio and the Additional Unencumbered Assets were fair valued on December 22, 2008 and December 31, 2008, respectively, representing the estimate of the present value of amounts to be received in the future as of September 22, 2008.

#### 5. Changes in Measurement Dates - Lehman Portfolio [\$0.7bn]

September 19 (Friday) closing prices were originally used to estimate the fair value of the Lehman Portfolio as of opening September 22 (Monday). Management reconsidered its view and decided to use closing prices September 22 as a better estimate of fair value as of opening September 22 due to the following reasons:

The commencement of LBI's SIPA liquidation on September 19, 2008 caused significant turmoil in the markets at that time and there was further downward pressure on prices over that weekend; and  
Management could not source reasonable intra-day numbers for most asset classes and the S&P opening is a poor proxy for much of the Equity portfolio purchased.

[\$0.3bn] - For liquid assets, vendor pricing was used and therefore Barclays 9/19 vendor prices were updated with 9/22 vendor prices. Product Control Group - Price Testing ("PT") were asked to value the entire portfolio as of September 19. From inquiries, we understand that PT completed the process for approximately 8,000 CUSIPs in two days. Illiquid assets, which were originally held in the Portfolio Management Trading Group ("PMTG") Management Book, were priced by PT using matrix pricing (adjusted judgementally based on qualitative factors for each asset) or cash flow models as of September 19. There were no changes in marks from 9/19 to 9/22 as PT, due to lack of observability, could not differentiate prices between these two dates.

[\$0.4bn] - Barclays' policies and procedures require the Front-Office ("FO" or "Trader") to value trades (as the trading experts) and PT to independently verify FO marks. Between 9/22 and 9/30 PMTG transferred the majority of assets from the PMTG Management Book to the PMTG Trading Desks through an internal

auction. As of 9/30, FO marked all positions and PT performed independent price verification over the FO marks, in accordance with Barclays policies and procedures. Management noted many differences in the 9/19 versus 9/30 prices. Due to lack of observability in prices for the products in PMTG, Management concluded that no significantly new pricing data was available on 9/30 that was not available on 9/19 and that the changes in prices were the result of the improved process (FO pricing and IPV testing, as opposed to PT only pricing) and the additional time afforded to PT as part of the month end process. PT produced a memo explaining that the differences between 9/19 and 9/30 for the top 50 positions were the result of errors in the 9/19 process (see below).

Therefore, for PMTG securities, Management used the results of the 9/30 pricing process as the best estimate of fair value as of 9/22. The impact of using the 9/30 fair value estimates versus the 9/19 estimates are captured in the table below.

#### 6. Bid / Offer - Lehman Portfolio [\$1.5bn]

Column 2 - 9/19 PT FV  
Column 3 - Change in prices 9/19-9/22 for vendor prices  
Column 4 - Change due to remark when transferred from PMTG mngt book to PMTG trading desk  
Column 5 - Change in PMTG mngt book marks 9/19 - 9/30  
Column 6 - Bid/offer adjustment  
Column 7 - Estimated FV recorded in SAP

Barclays policies and procedures are that FO mark cash securities to bid prices. Therefore, no bid/offer adjustment is taken on cash securities. However, the liquid assets were priced using vendor prices as of 9/22, as noted above. Management believe that vendor prices received are mid-prices and therefore a bid-offer spread was applied to all liquid products. The following bullets address managements' rationale for the bid/offer reserves on the liquid Lehman Portfolio assets:

Emerging markets - A flat 3% was used. PT used a Bloomberg functionality that allows PT access to the runs the traders receive. The data is only available for a limited period and as the analysis was run in January 2009, November bid-offers were therefore used as indicative. The amount is deemed de minimis and no additional work performed.  
Rates (Treasures) - A 0.1% bid/offer was applied to Treasures which is \$5.3m. The amount is deemed de minimis and no additional work performed.  
Rates (Agencies) - A 5% bid/offer reserve was applied to Agency debt product. This comprises \$462.7m (the remaining \$20.5 of the \$488.5 relates to other Agency & Foreign Government covered bonds and although it is just above the de minimis level, no further testing was performed in light of the overall materiality to the entire portfolio and other work performed on the portfolio). Management's support for the 5% is that IPV results based on implied yield testing shows a desk conservative variance of approximately 5%. SFG noted this conservative trend in Agencies price testing in their memo. The desk prices at bid. PCG have represented that pricing to the implied yield results in a mid price. Therefore, the 5% adjustment of the implied yield mid-prices to bid prices appears reasonable.

The rationale for bid/offer on the remaining portfolios is as follows:

RMBS (Agency Mortgages) - Although vendor prices were available for Agency Mortgages, PT used an implied yield methodology. This implied yield methodology is consistent with their independent price verification approach to the legacy Barclays Agency Mortgage portfolios. Management applied a 10% bid/offer adjustment to Agency CMO (\$359.5m) and a 1% bid/offer adjustment to Agency Pools (\$90.4m). Two methods were used to estimate the bid/offer reserve. Method 1 was to take observable pricing indications from various sources and measure the differences at the bond level. These variances were then averaged for Agency CMO product types. The Agency Pools variance was 1% and Agency CMOs was 10%. In Method 2, using limited trade data available for the month of September, management reviewed Agency CMOs that had a BUY and a SELL on the same day. Using this information, the weighted average Bid/offer spread for Agency CMOs was 10.5%. This was based on a trade sample of 39 Agency bonds. SFG reviewed the support provided and noted that this is a reasonable process for the Company's determination of the bid/offer reserve. As noted above and in SFG's memo, there is typically a 5% difference between the traders bid price and PCG's mid-implied yield price on the Agency book. The average of the bid/offer for Agencies is 3.5% (i.e 457m/13,077m). This is another data point which supports the reasonableness of the bid/offer adjustment.  
PMTG II - \$142.9m of the bid/offer spread is to adjust the price of the Pine CDO to 46, which is the FO price and the price PwC's FAVG believe is reasonable. Therefore, the bid/offer on PMTG appears reasonable and the \$1m excess is deemed de minimis.  
PMTG - \$54.7m - The majority of the positions are held in the PMTG management book. Management believes that the additional bid/offer is warranted given the additional write-downs taken upon transfers to PMTG trading desks, which they believe is indicative of mid-level prices in the PMTG Management Book. The explanation appears reasonable and in addition we considered the illiquidity of these assets and therefore the likely wide bid/offer spread. Given these qualitative factors and the fact the amount is immaterial and represents just 3% of the market value, no further testing was performed.

#### 7. Changes in Measurement Dates - JPM Portfolio [\$0.03bn]

PT priced the JPM securities as of 12/22. FO priced the PMTG portfolio at 12/31 and PT performed independent price verification as at that date. Management identified a significant number of variances in the PMTG book between 12/22 and 12/31. Management concluded, using the same rationale as the 9/30 pricing point for 9/22 PMTG fair values, that 12/31 fair value estimates were a better indicator of the 12/22 fair value because of the inclusion of FO and PT in the pricing process. The following support was provided by the client. The difference in 12/22 final mark and 12/31 final mark for PMTG was \$33m, which was not recorded by Management and therefore posted to our SUD. The entry is Dr Negative Goodwill, Cr Trading Losses.

PBC (received from Richard Landremann) JPM 12-22 12-30 PCG Price Change\_xls.zip JPM Port 3 12-22 vs. 12-31 Diff\_doc.zip

#### 8. Bid / Offer - JPM Portfolio [\$0.2bn]

In 7 above, we have explained that the JPM Portfolio should have been priced using the 12/31 trader marks. At 12/31 there is no bid/offer adjustment applied as the positions are already marked at bid by the front office. A SUD was posted for the difference between the \$3.7bn above and the 12/31 marks. Therefore, the bid/offer adjustment above is not applicable.

#### 9. Reconciliation of the above Tables to the Opening Balance Sheet

The following table reconciles the Lehman Portfolio and JPM Portfolio to the OBS:

The difference of \$20m was just above our de minimis level of \$18.75m. No further work performed on the reconciliation of the support to the OBS as a result of the magnitude of the difference.

#### 10. Summary of Valuation Procedures Performed - Lehman Portfolio [\$42.6bn as of 9/22, pre-bid/offer (\$1.5bn) and pre-PMTG 9/30 adjustment (\$0.4bn)]

[Note: The fair value numbers referenced below are the marks prior to the bid/offer adjustment as PwC's valuation specialists tested the mid-prices and the bid/offer was tested separately, as discussed above. As noted at the top of the critical matter, the Equities valuation is tested by PwC UK and scoped out of our opening balance sheet work].

From a valuation testing perspective, the engagement team first divided the portfolio into positions priced using a vendor price and those priced in some other manner.

##### 10.1 Positions priced using vendor prices [\$16.7bn, excluding Equities]

Through our price testing across all areas of the business during the 2008 integrated audit, we have high controls reliance over the independent price verification

function. Within that function we test the accuracy of pricing downloads from independent sources and are satisfied that the process of obtaining and attributing external prices accurately to positions is operating effectively. The process was performed centrally by the Credit Fixed Income PT team under Sean Teague. We therefore selected a sample of 60 prices as of 9/19 and sent the sample to IMSAG for testing. From the results of testing we concluded that the vendor prices used were appropriate.

We considered the source of the vendor prices and the instances where only one vendor price was used. The products priced using vendor prices were Agencies and Treasuries, Corporates and Emerging Markets. The inherent risk of the Agencies and Treasuries prices being materially misstated for these portfolios is considered remote given the liquidity in these markets. The inherent risk in the Corporate and Emerging Markets vendor prices increases because the markets in general and in certain single names will be less liquid. In addition, as part of the 1060 tax allocation work performed by the client, certain vendor prices were classed as Class III for tax purposes based on research performed by the traders whereby the last trade date or lot size called into question the accuracy of the vendor price.

Given the immaterial change in fair value from 9/19 - 9/22 and the fact that we concluded that no exceptions were noted from our 9/19 sample, we did not perform additional testing over the 9/22 marks.

## 10.2 Positions prices using other matrices, models or custodian price [\$16.2bn]

The following portfolios / sub-portfolios were fair valued as follows:

PMTG - Private Label Alt-A & Subprime MBS [\$1.3bn] - Front-office priced the portfolio and PCG performed independent price verification. PCG used discount margin matrices for subprime, alt-a and option ARM depending on collateral type which is consistent with the pricing testing approach for the legacy BarCap portfolio. However, there were many isoteric securities exhibiting different credit and structural features which the client applied spread adjustments, hand pricing or in some cases vendor pricing. PCG document the key judgements in pricing the top 50 positions and proved that the sensitivity of the remainder of the portfolio to a 10% adjustment in price resulted in a \$35m adjustment. PwC's Financial Instruments and Credit Group reviewed the explanations for the top 50 positions, agreed a sample of discount margins ("DMs") on various collateral types to the matrices, compared the September portfolio DMs to May DMs per the matrices to determine the reasonableness of the yields. As noted in 5 above, the 9/30 prices were used as a better indicator of fair value as of 9/22. The client provided explanations for any significant price changes from 9/19 to 9/30 and ultimately FIGC concluded that the Company's process of using models and observable market data provide a reasonable basis for determining fair value. FIGC also concluded that the pricing comparison provides a reasonable basis for their conclusion that the Lehman portfolio's credit characteristics and profile are different than legacy BarCap's assets and that the price differences between the Lehman and legacy BarCap portfolios are consistent with the differences.

PMTG - CDOs & CLOs [\$0.7bn] - PwC's Financial Analytics and Valuation Group (FAVG) reviewed PCG's initial discounted cash flow approach, agreeing the assumptions (CDR, CPR, yields and severity) to industry published data and assessing the reasonableness of the yields (as the valuation we insensitive to CDR & CPR) based on the tranche characteristics. FAVG also benchmarked the ending prices to LCDX derived prices. As noted in 5 above, the 9/30 prices were used as a better indicator of fair value as of 9/22. FAVG examined the changes in marks, where applicable, and ultimately FAVG concluded that the fair value as of 9/30 for the positions reviewed was not unreasonable, except for one position which they could not conclude on the change in price due to a lack of support (the further write-down of \$9.5m is immaterial but was aggregated with all other untested balances).

PMTG - CMBS [\$0.3bn] - PwC's REBAS proxy priced a sample of deals to TRIPs (vendor pricing) and observed pricing variances within the Lehman bonds due to the fact that many of the bonds are not triple A and therefore third party pricing is not as reliable. However, the prices did not appear unreasonable.

Rates - Munis [\$0.4bn] - Municipal bonds were priced using vendor prices less a 5-8% haircut to reflect liquidity conditions at 9/22. All Auction Rate Securities ("ARS") were priced at 80. FIGC obtained prices for 60 municipal securities and found the clients prices to be within a reasonable range. FIGC concluded that the clients process was a reasonable basis for determining fair value.

RMBS Agency Mortgages [\$13.1bn] - PCG priced the portfolio using a discounted cash flow approach incorporating the Blackrock prepayment speed model and estimated market yields. FIGC stratified the portfolio into various categories and compared the implied yield on the Lehman portfolio to the implied yield on the legacy BarCap portfolio and concluded that the Lehman portfolio was within a reasonable range of the legacy portfolio. This benchmarking exercise provided comfort as the engagement team obtained high controls reliance over the independent price verification process which operated over the legacy portfolio which FIGC benchmarked against.

Other [\$0.4] - FAVG examined four securities with a mtm of \$0.07bn where PCG defaulted to the BNY price due to a lack of collateral information. FAVG concluded that the write-up of one position due to an EOD was the result of a post 9/22 date and therefore the pre-EOD mark was more appropriate (the difference of \$10m was de minimis). SFG examined 11 securities with a mtm of \$0.3bn and concluded the Company's methodologies, procedures and use of observable market data points provide a reasonable basis for their determination of fair value.

The engagement team is satisfied that the audit risk associated with the remaining untested securities of ~\$0.15bn has been reduced to a satisfactory level as:

- The amount is below our materiality
- The client used the custodian price (BNY)
- The \$0.15bn relates to 155 individual securities therefore the average value was \$2.7m
- The average price was 35 and therefore the securities are already heavily discounted.

## 11. Summary of Valuation Procedures Performed - JPM Portfolio [\$3.7bn as of 12/22, pre-bid offer (\$0.2bn) and after adjusting for cash received from JPM for matured deals (\$0.2bn)]

The following portfolios / sub-portfolios were fair valued as follows:

Corporates and Emerging Markets [\$1.5bn] - The portfolio was priced using vendor prices. Consistent with 10.1 above, we selected a sample of 60 prices as of 9/19 and sent the sample to IMSAG for testing. From the results of testing we concluded that the vendor prices used were appropriate.

Corporates [\$0.1bn] - FAVG reviewed \$0.1bn and concluded the fair value was reasonable.

Agency Mortgages [\$0.2bn] - The Agency Portfolio was priced using the average of two vendor prices which SFG deemed reasonable.

PMTG - Non-Agency Securities [\$0.4bn] - The process was consistent with the process over non-agency mortgages fair valued in the Lehman portfolio. SFG concluded this was reasonable.

PMTG - Manufactured Housing [\$0.2bn] - PCG use the Barclays servicer (HomEq) subprime roll rate matrix, a 60% loss severity, CPR of 10, 20% yield and a 150% loss multiplier. SFG concluded that the assumptions are reasonable and reflective of the underlying collateral and current market conditions. SFG benchmarked the subprime roll rate matrix to the JP Morgan 6 month average and noted the assumptions utilized were consistent with market data. SFG concluded that

PMTG - Life Insurance ABS [\$0.6] - The largest position was a \$0.4bn bond which PwC's Actuarial Group concluded that the pricing was not unreasonable. The additional \$0.2bn was comprised of 35 bonds priced at 38 and therefore heavily discounted. The specialists were unable to conclude on the reasonableness of these without performing additional modelling work on the underlying collateral. The engagement team did not believe that the audit risk associated with the remaining untested amount merited additional testing and therefore the amount was included in our untested portion. The untested Life Insurance bonds were immaterial in the aggregate.

PMTG - CDO/CLO [\$0.4bn] - FAVG concluded that the overall range of prices of CDOs/CLOs appear to be in line with market commentary (where available) and appear to be supported by general price levels.

PMTG - Munis [\$0.02] - SFG reviewed the portfolio and valuation deemed reasonable.

PMTG - CMBS [\$0.04] - A sample was reviewed by REBAS who concluded that the secondary book and the JPM bonds are in line with third party pricing. Most of these bonds are triple A and there is more liquidity in terms of trading and therefore price closer to third party prices.

PMTG - Other ABS [\$0.2bn] - Other ABS included the following:

- Auto Other ABS (Vendor Pricing)
- Credit Cards Other ABS (5 CPR and DM between 590 - 1550 based on observable market research)
- FHA Other ABS (170 PSA, 15% Yield)
- Floor Plan Other ABS (Vendor Price)
- Litigation Fees (Desk Price due to lack of information)
- Franchise Other ABS (Vendor Price or Observable Trades)
- Student Loan Other ABS (FELP and 10 CPR 300DM)
- Unguaranteed Portions of SBA Loans (1300 DM, 0-1 CPR)

Other ABS including Aircraft (Vendor Prices, Desk Prices)

Where analytics were not available, PCG observed the desk price. In contrast to the MBS book, PCG did not observe any reasonable volume of trades. PCG applied vendor pricing for autos and model pricing for credit cards. In the event that model pricing was used, PCG used observable spreads from market participants. SFG concluded that PCG's process provides a reasonable process for determining fair value, utilizing available, observable market based data points. SFG concluded that the pricing methodology for the respective asset classes noted above provides a reasonable basis for the Company's determination of fair value and the prices noted with the portfolio are directionally in line with those in the market.

The engagement team is satisfied that the audit risk associated with the remaining untested securities of \$0.2bn has been reduced to a satisfactory level as:

The amount is below our materiality

The client used the custodian price (BNY)

The \$0.2bn relates to 35 individual securities. The average value was \$6.2m

The average price was 38 and therefore the securities are already heavily discounted.

#### Conclusion:

In reference to section 5 i.e. the use of closing 9/22 prices to mark the 9/22 opening balance sheet - due to the commencement of LBI's SIPA liquidation on September 19, 2008 causing significant turmoil in the markets at that time, further downward pressure on prices over that weekend, the fact that management could not source reasonable intra-day numbers for most asset classes, we do not take exception to the use of close of 9/22 as the measurement date.

In reference to section 6 i.e. the bid/offer reserve on the Lehman portfolio - the engagement team in conjunction with our specialists have concluded that the bid/offer reserves appear reasonable based on the support provided by the client. The engagement team also considered the total average bid/offer which was 4% of the portfolio which, given the turmoil in the markets as of the acquisition date, did not appear like an unreasonable bid/offer spread especially considering the illiquid nature of a number of the securities acquired.

In reference to section 5 & 8 i.e. the use of 9/30 and 12/31 PMTG prices to value the portfolios as of 9/30 and 12/22, respectively - based on the more robust pricing process which is consistent with the results of our specialists, the 9/30 and 12/31 prices for PMTG appear to be a better indication of fair value as of 9/22 and 12/22, respectively. The clients documentation supports these facts by explaining that the changes in prices from 9/19 and 12/22 were due to pricing errors.

In reference to section 10 & 11 - Based on our controls work performed during the audit and substantive procedures performed in reaction to the acquisition, we believe that the fair value of the financial instruments acquired is within a range of acceptable fair values. That acceptable range has been impacted by the current credit environment and is wider than it would otherwise be in a normal market because of the high level of subjectivity required due to the lack of observable market data. This is especially pronounced in the illiquid assets concentrated in the PMTG portfolio. The untested portion of the portfolio is \$0.4bn and although just above our materiality threshold, from a quantitative perspective, is not deemed to be high risk given the work performed and comfort obtained on the rest of the portfolio. For the reasons cited in sections 10 and 11, we believe the audit risk associated with the untested portion has been reduced to satisfactory level.

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**BCI Ex. 873**



# **IASB Expert Advisory Panel**

**Measuring and disclosing the fair value of financial  
instruments in markets that are no longer active**

BCI Exhibit No.

**873**

October 2008



International  
Accounting Standards  
Board®





**IASB Expert Advisory Panel**

**Measuring and disclosing the  
fair value of financial instruments  
in markets that are no longer active**

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## Introduction

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- 1 In May 2008, and in response to the recommendations of the Financial Stability Forum in their April 2008 report *Enhancing Market and Institutional Resilience*, the International Accounting Standards Board (IASB) formed an expert advisory panel. The recommendations in the report called for the IASB to:
  - (a) enhance its guidance on valuing financial instruments when markets are no longer active (Recommendation III.6) and
  - (b) strengthen its standards to achieve better disclosures about valuations, methodologies and the uncertainty associated with valuations (Recommendation III.5).
- 2 The expert advisory panel comprised measurement experts from preparers and auditors of financial statements, users of financial statements, regulators and others. They met on seven occasions in June – October 2008. The panel identified practices that experts use for measuring and disclosing financial instruments when markets are no longer active.
- 3 This report summarises the discussions of the expert advisory panel. Part 1 of the report describes the practices used for measuring financial instruments when markets are no longer active. Part 2 of the report describes the practices used by entities when disclosing fair values in such situations. Nothing in this report constitutes an official position of the panel members or of the organisations they represent.
- 4 This report provides useful information and educational guidance for measuring and disclosing fair values for entities applying International Financial Reporting Standards (IFRSs). It has not been approved by the IASB and does not establish new requirements. The report provides guidance about the processes used and the judgements made when measuring and disclosing fair value. Entities may find this guidance to be useful in meeting the requirements of IFRSs.
- 5 Based on the discussions of the panel, the IASB published proposals to improve the fair value disclosures in IFRS 7 *Financial Instruments: Disclosures* in an exposure draft *Improving Disclosures about Financial Instruments* issued in October 2008. The proposed amendments to IFRS 7 are available on the IASB Website and have been reproduced in the appendix to this report. The discussions of the panel will also be useful to the IASB in developing its fair value measurement standard. This report and the accompanying IASB staff summary (available on the IASB Website) will also be included in the next edition of the financial instruments volume educational materials.
- 6 The examples in this report are for illustrative purposes only. The measurement examples in Part 1 contain issues that an entity might face when measuring the fair value of financial instruments. These examples do not represent the only approach to measuring fair values, nor do they represent mandatory valuation processes. The conclusions reached are based on the assumed facts and circumstances presented. Other approaches might be appropriate. The disclosure examples in Part 2 contain published audited and unaudited interim and annual disclosures made by both IFRS and US GAAP reporters. These examples might be considered by entities when

providing disclosures about the fair value of financial instruments. These examples do not present the only approach to presenting fair value disclosures, they are not necessarily best practice, nor do they represent mandatory disclosures under IFRSs.



## Part 1: Measurement

## Measurement summary

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- 7 To meet the objective of a fair value measurement (that is, to arrive at the price at which an orderly transaction would take place between market participants at the measurement date), an entity measures the fair value of financial instruments by considering all relevant market information that is available.
- 8 A thorough understanding of the instrument being valued allows an entity to identify and evaluate the relevant market information available about identical or similar instruments. Such information to be considered includes, for example, prices from recent transactions in the same or a similar instrument, quotes from brokers and/or pricing services, indices and other inputs to model-based valuation techniques. An entity uses such information to measure the fair value of its financial instruments by assessing all available information and applying it as appropriate.
- 9 When the market for a financial instrument is no longer active, an entity measures fair value using a valuation technique (commonly referred to as 'mark-to-model'). The selected valuation technique maximises the use of observable inputs and minimises the use of unobservable inputs in order to estimate the price at which an orderly transaction would take place between market participants on the measurement date. Regardless of the valuation technique used, an entity takes into account current market conditions and includes appropriate risk adjustments that market participants would make, such as for credit and liquidity.
- 10 When using a valuation technique, an entity periodically calibrates the valuation model to observable market information to ensure that the model reflects current market conditions and to identify any potential deficiencies in the model. As market conditions change, it might become necessary either to change the model(s) used or to make additional adjustments to model valuations. An entity makes adjustments to a model valuation when it results in a better estimate of the price at which an orderly transaction would take place between market participants on the measurement date.
- 11 Because a fair value measurement contemplates a transaction between current market participants, an entity considers the effect of market participants changing over time. For example, the potential buyers for the instrument in an inactive market might differ from the potential buyers in an active market.



## Applying the fair value measurement objective

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- 12 The fair value measurement requirements in IAS 39 *Financial Instruments: Recognition and Measurement* are generally clear and well understood. The objective of fair value measurement in IAS 39 is to arrive at the price at which an orderly transaction would take place between market participants at the measurement date.
- 13 To meet the objective of a fair value measurement, an entity measures the fair value of financial instruments by considering all relevant market information that is available. When measuring fair value using a valuation technique (commonly referred to as 'mark-to-model'), an entity maximises the use of relevant observable inputs and minimises the use of unobservable inputs.
- 14 The recent illiquidity in some financial markets has highlighted the following areas in which views exist that support approaches that might not meet the objective of fair value measurement:
  - (a) using management's estimates to measure fair value.
  - (b) using prices in active markets versus inactive markets.
  - (c) identifying forced transactions.
  - (d) interpreting different estimates of fair value.
  - (e) making valuation adjustments.

### Management's estimates in a fair value measurement

- 15 When relevant observable market data does not exist, or when significant adjustments need to be made to observable inputs, fair values are determined using a valuation technique based primarily on management's internal assumptions about future cash flows and appropriately risk-adjusted discount rates. Regardless of the valuation technique used, that technique reflects appropriate risk adjustments that market participants would make for credit and liquidity risks. A value measured using an approach that does not take into account all factors that market participants would consider in pricing the instrument does not represent an estimate of a **current** transaction price on the measurement date.
- 16 Even when an observable transaction price is available, an entity might need to make significant adjustments to that transaction price. Those adjustments might be necessary to arrive at the price at which an orderly transaction would take place between market participants at the measurement date. When an adjustment is significant to the overall fair value measurement and involves unobservable inputs, an entity might use multiple valuation techniques to corroborate the results of each model (eg an entity might use both a cash flow model and a model based on observable market prices). In those circumstances, an entity considers (and weighs) the different valuation techniques in arriving at the fair value of the instrument, placing more weight on the approaches that use observable inputs.

### Active versus inactive markets

- 17 There is no bright line between active markets and inactive markets. However, the biggest distinction between prices observed in active markets and prices observed in inactive markets is typically that, for inactive markets, an entity needs to put more work into the valuation process to gain assurance that the transaction price provides evidence of fair value or to determine the adjustments to transaction prices that are necessary to measure the fair value of the instrument. The issue to be addressed, therefore, is not about market activity *per se*, but about whether the transaction price observed represents fair value.
- 18 Characteristics of an inactive market include a significant decline in the volume and level of trading activity, the available prices vary significantly over time or among market participants or the prices are not current. However, these factors alone do not necessarily mean that a market is no longer active. An active market is one in which transactions are taking place regularly on an arm's length basis. What is 'regularly' is a matter of judgement and depends upon the facts and circumstances of the market for the instrument being measured at fair value.
- 19 When a market is not active, an entity measures fair value using a valuation technique. The technique chosen should reflect current market conditions. Therefore, a transaction price in the same or a similar instrument should be considered in the assessment of fair value as a current transaction price is likely to reflect current market conditions.
- 20 Accordingly, an entity considers such transaction prices, but does not conclude automatically that any transaction price is determinative of fair value. If such transaction prices are used, they might require significant adjustment based on unobservable data. Determining fair value in a market that has become inactive depends on the facts and circumstances and may require the use of significant judgement. Regardless of the valuation technique used, an entity must include appropriate risk adjustments that market participants would make, such as for credit and liquidity.

### Forced transactions

- 21 The objective of a fair value measurement is the price at which an orderly transaction would take place between market participants on the measurement date; that is, it is not a forced liquidation or distress sale (ie forced transaction).
- 22 Even when a market has become inactive, it is not appropriate to conclude that all market activity represents forced transactions. However, as noted above, an entity does not conclude automatically that any transaction price is determinative of fair value. An entity considers all available information, but does not use a transaction price when there is evidence that the transaction was forced. Determining fair value in a market that has become inactive depends on the facts and circumstances and may require the use of significant judgement about whether individual transactions are forced. Any transaction determined to be forced does not form part of a fair value measurement.
- 23 An imbalance between supply and demand (for example, fewer buyers than sellers) is not always a determinant of a forced transaction. A seller might be under financial pressure to sell, but it is still able to sell at a market price if there is more

than one potential buyer in the market and a reasonable amount of time is available to market the instrument.

- 24 Indicators of a forced transaction might include, for example:
- (a) a legal requirement to transact, for example a regulatory mandate.
  - (b) a necessity to dispose of an asset immediately and there is insufficient time to market the asset to be sold.
  - (c) the existence of a single potential buyer as a result of the legal or time restrictions imposed.
- 25 However, if an entity sells assets to market participants to meet regulatory requirements, the regulator does not establish the transaction price and the entity has a reasonable amount of time to market the assets, the transaction price provides evidence of fair value. Similarly, transactions initiated during bankruptcy should not automatically be assumed to be forced. The determination of whether a transaction is forced requires a thorough understanding of the facts and circumstances of the transaction.

### **Different estimates of fair value**

- 26 When measuring fair value using a valuation technique, an entity selects the most relevant valuation models to use, makes any assumptions necessary and assesses the reliance that can be placed on any available pricing information in order to estimate the price at which an orderly transaction would take place between market participants on the measurement date. Regardless of the valuation technique used, an entity includes appropriate risk adjustments that market participants would make. An entity exercises judgement when making these decisions. As a result of applying judgement, two entities might arrive at different estimates of the fair value of the same instrument even though both still meet the objective of fair value measurement. This could be the case when, even if the two entities use the same model, the unobservable inputs used in the model are different.
- 27 Some seem to hold the view that two entities valuing the same instrument should always arrive at the same answer when measuring fair value and, if they arrive at different answers, then one or both entities are wrong. However, it is possible that entities will arrive at different estimates of the fair value of the same instrument at the same measurement date, and the valuation techniques and inputs used by both entities can still meet the objective of fair value measurement and be in compliance with the accounting guidance. The fact that different estimates of fair value exist reflects the judgement and assumptions applied and the inherent uncertainty of estimating the fair value of instruments that do not have prices quoted in an active market. A single entity, however, applies judgement consistently (across time and by type of instrument) when measuring fair value.
- 28 Because different entities might arrive at different fair values, appropriate disclosures about the techniques used and judgements made are critical to users of financial statements.

## **Valuation adjustments**

- 29 If a valuation technique is used to measure fair value, the valuation model is periodically calibrated to observable market information to ensure that the model reflects current market conditions and to identify any potential deficiencies in the model. As market conditions change, it might be necessary either to change the models used or to make additional adjustments to model valuations. Valuation adjustments are appropriate if they result in a better estimate of the price at which an orderly transaction would take place between market participants on the measurement date. Valuation adjustments include, for example, model deficiencies highlighted through calibration of the model, liquidity adjustments and credit adjustments. Adjustments are not appropriate if they adjust the measurement away from fair value, for example for conservatism.

## Understanding the instrument

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- 30 To meet the fair value measurement objective, the first step an entity takes when measuring the fair value of a financial instrument that does not have a price quoted in an active market is to understand the terms of the instrument. A thorough understanding of the terms of the instrument being measured is necessary even when there are current or recent transactions in an inactive market for the same instrument or observable transactions for similar instruments. Without a thorough understanding, an entity cannot, for example, adjust the price observed in recent transactions in the same instrument for movements in market factors since the transaction date or assess the level of similarity between the instrument being measured and the instrument for which observable transaction prices are available.
- 31 Furthermore, if there are no observable transactions in an instrument, it is necessary to have a thorough understanding of the instrument to assess the available market information that can be used to measure the fair value of the instrument (such as transaction prices for similar instruments or observable inputs to apply when using a valuation technique). To make valid comparisons and to adjust for any differences, it is necessary to understand the terms of the instrument that is traded and how those terms differ from those of the instrument the entity is measuring.

### Terms of an instrument

- 32 The terms of an instrument allow an entity to estimate the undiscounted cash flows of the instrument. The basic terms of a financial instrument include, for example:
- (a) **the timing of the cash flows:** when the entity expects to realise the cash flows related to the instrument.
  - (b) **the calculation of the cash flows:** for example, for a debt instrument the interest rate that applies (ie the coupon), or for a derivative instrument how the cash flows are calculated in relation to the underlying instrument or index (or indices).
  - (c) **the timing and conditions for any options in the contract:** for example:
    - (i) prepayment options (one or both parties can demand or make an early payment).
    - (ii) extension options (one or both parties can extend the period of the instrument).
    - (iii) conversion options (one or both parties can convert the instrument into another instrument).
    - (iv) put or call options (one or both parties can exchange the instrument for a defined amount of cash or other assets or liabilities).
  - (d) **protection of the rights of the parties to the instrument:** for example:

## Part 1: Measurement

- (i) terms relating to credit risk in debt instruments, such as collateral, event of default and margin call triggers.
  - (ii) subordination of the instrument, for example the priority of the instruments in the event of a winding up.
  - (iii) the legal enforceability of the cash flows.
- 33 In addition, to measure the fair value of an instrument it is necessary to assess the return that market participants would require on the instrument to compensate for the risk related to:
  - (a) the amount and timing of the cash flows for the instrument.
  - (b) uncertainty about the ability of the counterparty to make payments when due (credit risk). This is a factor even if the counterparty is a financial institution.
  - (c) the liquidity of the instrument.
- 34 In other words, the risk of the instrument determines the premium that a market participant would require to take on that risk. The market's appetite for different risks changes over time. Therefore, the premium that market participants would require changes over time. Fair value measurement is based on the premium required by market participants at the measurement date.

## Credit protection

- 35 Understanding the credit risk of a debt instrument involves evaluating the credit quality and financial strength of both the issuer and the credit support providers. There are many factors an entity might consider and some of the more common factors are as follows:
  - (a) **collateral asset quality:** the assets to which the holder of an instrument has recourse in the event of non-payment or default could be either all of the assets of the issuing entity or specified assets that are legally separated from the issuer (ring-fenced). The greater the value and quality of the assets to which an entity has recourse in the event of default, the lower the credit risk of the instrument. Measuring the fair value of a debt instrument therefore involves assessing the quality of the assets that support the instrument (the collateral) and the level of the collateralisation, and evaluating the likelihood that the assigned collateral will generate adequate cash flows to make the contractual payments on the instrument.
  - (b) **subordination:** the level of subordination of an instrument is critical to assessing the risk of non-payment of an instrument. If other more senior instruments have higher claims over the cash flows and assets that support the instrument, this increases the risk of the instrument. The lower the claim on the cash flows and assets, the more risky an instrument is and the higher the return the market will demand on the instrument.
  - (c) **non-payment protection:** many instruments contain some form of protection to reduce the risk of non-payment to the holder. In measuring fair value, both the issuer and the holder of the instrument consider the effect of the protection on the fair value of the instrument, unless the entity accounts for

the protection as a separate instrument. Protection might take the form of a guarantee or a similar undertaking (eg when a parent guarantees the debt of a subsidiary), an insurance contract, a credit default swap or simply the fact that more assets support the instrument than are needed to make the payments (this is commonly referred to as over-collateralisation). The risk of non-payment is also reduced by the existence of more subordinated tranches of instruments that take the first losses on the underlying assets and therefore reduce the risk of more senior tranches absorbing losses. When protection is in the form of a guarantee, an insurance contract or a credit default swap, it is necessary to identify the party providing the protection and assess that party's creditworthiness (to the extent that the protection is not accounted for separately). The protection will be more valuable if the credit risk of the protection provider is low. This analysis involves considering not only the current position of the protection provider but also the effect of other guarantees or insurance contracts that it might have written. For example, if the provider has guaranteed many correlated debt securities, the risk of its non-performance might increase significantly with increases in defaults on those securities. In addition, the credit risk of some protection providers moves as market conditions change. Thus, an entity evaluates the credit risk of each protection provider at each measurement date.

## Evaluating available market information

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- 36 After gaining a thorough understanding of the terms of the instrument, an entity then looks for recent observable transactions in the same instrument to measure fair value. When transactions in the same instrument are not observable, recent transactions for similar instruments might provide evidence of fair value. Using transaction prices for the same or a similar instrument is discussed below.

### Transaction prices

#### Same instrument

- 37 When measuring the fair value of an instrument for which there is not an active market, an entity first looks for recent transactions in the same instrument. When a current transaction can be observed in the same instrument, that price is used unless there is evidence that it does not represent fair value.
- 38 An entity does not automatically conclude that any observed transaction price is determinative of fair value. Determining fair value when a market is no longer active depends on the facts and circumstances and sometimes requires the use of significant judgement about whether individual transactions represent the price at which an orderly transaction would take place between market participants on the measurement date.
- 39 When markets are inactive, there might be a timing difference between the most recent transaction in the same instrument and the fair value measurement date. In these circumstances, changes in market factors in the intervening period are considered when measuring fair value. Some changes in market conditions might relate directly to the instrument being valued, such as changes in the credit rating of the issuer of the instrument and changes in the value of any collateral supporting the instrument. Other changes might relate to the market in general, such as a change in market credit spreads relative to risk. All types of changes that market participants would factor into the price are considered when measuring fair value.
- 40 Furthermore, in an inactive market, a transaction price for the same instrument might not represent fair value if the transaction involved a seller that needed to sell the assets and there were one or very few buyers. An entity considers all available information, but it does not use a transaction price when there is evidence that the transaction was forced. Any transaction determined to be forced does not form part of a fair value measurement.
- 41 However, such a transaction might not meet the definition of a forced or distress sale if the seller had a reasonable amount of time to market the assets or there were a number of parties competing to buy. Although such transaction prices are considered in providing an indication of fair value, they are not necessarily determinative. In such a situation, an entity uses other evidence to measure fair value, such as a valuation technique using transaction prices for similar instruments or a discounted cash flow model that maximises the use of relevant observable inputs and minimises the use of unobservable inputs (see 'Using models' below). This is commonly referred to as 'mark-to-model'.



**Similar instruments**

- 42 Recent transactions for similar instruments might provide evidence of fair value, although an entity might need a model to adjust for any differences between the instrument being measured at fair value and the instrument with an observable transaction price. What constitutes a 'similar instrument' is a matter of judgement and requires an understanding of the terms of the instruments (for example the underlying terms and other characteristics of the instruments).
- 43 An entity considers the price for a similar instrument, but does not use that price when there is evidence that it does not represent fair value. This is because it is not appropriate to conclude automatically that any transaction price is determinative of fair value.
- 44 Factors that might lead to an adjustment to an observed transaction price for a similar instrument include (these might also be useful consideration in evaluating transactions in the same instrument):
- (a) **the timing of the transaction:** if time has elapsed since the observed transaction, movements in market factors in the intervening period are considered and adjusted for.
  - (b) **the terms of the instruments subject to the transaction:** as economic and market conditions change, for example, market participants might require covenants for a new instrument that are different from those that were required for a previous instrument. This difference in terms affects the relative fair value of the two instruments. Furthermore, if a transaction contains complex terms and requires extensive documentation to explain the terms, market participants might demand a larger premium to compensate them for the effort required to understand and evaluate the terms of the specific instrument, or the potential additional hedging costs that might be incurred.
  - (c) **any related transactions:** for example, if a seller provides the finance for a sale to a buyer, and this finance is not at a market rate (and assuming there is no other transaction taking place), an adjustment is made to the transaction price to reflect the effect of the funding on that price.
  - (d) **the correlation between the price of the instrument that is the subject of the observed transaction and the price of the instrument being measured:** in general, the greater the correlation between the two instruments, the more relevant the observed transaction price is likely to be. When assessing correlations, it is important to remember that observed historical correlations cannot always be expected to continue, particularly if market conditions have changed.

## Part 1: Measurement

- 45 Figure 1 contains an example of how an entity might assess the similarity of different financial instruments.

For a particular residential mortgage backed security (RMBS), an entity might look at RMBSs with the same collateral type, same credit rating, same level of subordination and same issue timing. As fewer and fewer transactions take place in the marketplace, it might be necessary to consider instruments with less comparable features to obtain relevant observable pricing information. For example, if an entity purchased an RMBS holding that was issued in June 2005, but no transactions exist for RMBSs issued in mid-2005, an entity might look to trades of RMBSs issued in the previous or subsequent quarter to provide evidence of fair value, adjusting the price as necessary (eg for changes in market conditions and differences in terms). An entity might also look to securities of the same issue period if these have similar collateral to the RMBS in question.

**Figure 1 Assessing similarity**

- 46 An entity also can use the observable price for a similar instrument to test the model used to value its own instrument to ensure that it takes into account current market conditions (eg an indication of credit and liquidity spreads). Models used to value financial instruments are calibrated in this way to any observable and relevant market information available. Calibration is discussed further in the section on 'Using models' below.

## Indices

- 47 A common method of pricing financial instruments is to price against an observable index. Observable prices might be available for indices that share similar risks to those of the instruments being valued and hence demonstrate similar responses to movements in market factors.
- 48 When using an index to provide input into a valuation model for an instrument or a portfolio of instruments, an entity assesses to what extent the index reflects the instrument or the portfolio of instruments being valued, and makes appropriate adjustments for any differences in their characteristics. For example, it might not be appropriate to use an index that reflects price movements on a portfolio of underlying instruments as a valuation input for a holding in a single instrument.
- 49 An entity also assesses the extent to which the index reflects actual transactions and therefore provides insight about the quality of the index as an input into a valuation model or as a source of calibration data. For some unobservable inputs, such as some volatility estimates for valuing equity options, few indices are available and the equities underlying the index might be quite different from the equity that underlies the derivative instrument.
- 50 Indices might not directly represent the prices of the underlying instruments and, as a result, might not reflect the current market conditions for the instrument being valued. An entity uses judgement to assess whether an index represents the prices of the underlying instruments and therefore whether it represents an appropriate input into a valuation model or should be relied upon as a source of calibration.

- 51 Figure 2 contains an example of how an index might be used to measure the fair value of a corporate debt instrument.

Credit default swap (CDS) indices might be used to evaluate movements in corporate credit spreads when measuring the fair value of a corporate debt instrument for which an entity's credit spread information is not available. These indices are based on a large number of underlying corporate CDSs. The underlying corporate CDSs are chosen on the basis of criteria that apply to the index being created, and new indices are created periodically. Such an index might provide a useful indicator of the direction and quantum of movement in credit spreads for corporate debt in general. However, because each index created is based on specific criteria, it provides relevant pricing information only for corporate debt that meets these criteria; that is, debt issues with similar characteristics to those on which the index is based. In addition, such an index might not reflect other attributes of the debt instrument being valued; for example, prepayment provisions, covenants and other protections.

*Figure 2 Using indices*

### **Information from brokers and pricing services**

- 52 When there is not an active market for a financial instrument, prices obtained from brokers and/or pricing services can provide evidence of fair value. However, they are not necessarily determinative if an active market does not exist for the instrument. When markets are not active, brokers and pricing services are likely to rely more on models than on actual transactions, with inputs based on information available only to the broker or pricing service. Before relying on those prices, an entity obtains an understanding of how the prices were determined to assess whether they are consistent with the fair value measurement objective (ie the price at which an orderly transaction would take place between market participants on the measurement date). For example, an entity places less reliance on prices that do not reflect the result of market transactions, takes into account whether the prices are indicative prices or binding offers and considers how frequently the prices are estimated to assess whether they reflect market conditions at the measurement date.
- 53 When an entity is able to obtain prices from several different sources, the entity considers whether pricing differences lie within an acceptable range of prices in assessing whether they require further investigation. A comparison of several pricing sources that are independent of each other typically provides a better indication of fair value than a price from a single source. However, an entity still seeks to understand how valuations are performed and whether the valuation meets the objective of fair value measurement even when multiple prices are obtained.
- 54 Consistent pricing within a narrow range from several pricing sources might provide a better indication of what a current transaction price would be than when the prices obtained are widely dispersed. When prices are widely dispersed, an entity considers which prices best represent the price at which an orderly transaction would take place between market participants on the measurement date.

## Part 1: Measurement

- 55 In some cases, differing levels of information might be available to different brokers or pricing services and this could be the cause of the pricing differences. For example, if a broker was involved in the original sale of an instrument, that broker might have information specific to that instrument that enables it to assess the fair value better than another broker or pricing service without that information. When more transparency is available on how one price was arrived at compared with another, this allows greater validation of the price and might allow an entity to place more reliance on it.
- 56 It is normally not appropriate simply to take the average of quotes obtained from brokers and pricing services if the differences in prices are significant. When significant differences exist, an average does not represent a price at which a transaction would take place, and it is likely that one of the prices obtained better represents the fair value than the other(s). For example, if a particular pricing service has been used to value a particular instrument in the past, the price provided by that pricing service might well be the price the entity uses in future, although an entity should have a clear reason to believe that price best represents fair value and reflects current market conditions.
- 57 If an entity uses broker quotes and pricing services to validate its own pricing model, and the price generated by the model falls within the range of prices obtained from the brokers and pricing services, an entity might use its own model price. If the price generated by the model falls outside the range of prices obtained, then an entity uses judgement in weighting those broker quotes as an input to a fair value measurement. The entity also might still use its own model price, if there is evidence that the entity's model price better reflects the fair value of the instrument.

### Broker quotes

- 58 A quote obtained from a broker is generally an indicative price and not a binding offer (unless the broker is a market maker). In a liquid market, a broker quote is likely to reflect actual transactions in the instrument. However, as the number of transactions decreases, brokers rely more on proprietary models with inputs based on the information available to the broker. For example, they might use information about observable market transactions and assumptions based on their knowledge of the current market for the instrument to arrive at the quoted price.
- 59 A broker quote might be in the form of an indicative price or an indicative spread for an instrument. If an entity relies on a broker quote, it first considers whether the broker quote represents the price at which an orderly transaction would take place between market participants on the measurement date.
- 60 Even if an entity does not have the expertise to value complex instruments itself, it can perform an assessment of whether a broker price is a representationally faithful measure of fair value. When measuring fair values that are material to the financial statements, it is normally not appropriate to rely on a single broker quote. When possible, obtaining a number of broker quotes or other corroborating market information will provide a faithful representation of the fair value. In addition, quotes are more representationally faithful if they come from brokers that have a substantial presence in the market and the experience and expertise to provide a representationally faithful quote for the instrument.
- 61 If an entity is looking to rely on a price provided by any third party, whether a broker or a pricing service, it first tries to understand how the valuation has been

arrived at and whether it meets the objective of a fair value measurement. With broker quotes it might be more difficult to obtain this understanding as prices are based on proprietary models that brokers might not be willing to share. However, although brokers might not wish to discuss their models, it might still be possible to discuss the assumptions and the inputs used in the model. Furthermore, an understanding of the process for the calibration of the broker's model will also help to demonstrate whether the model is appropriate.

- 62 An important factor to consider is to what extent any quote obtained reflects actual market transactions. A broker quote generally is not a binding offer to buy, but the more it is based on actual market transactions the more likely it is to represent fair value. An entity also considers whether the price obtained is consistent with any market information that is available. As discussed previously, if there are any current market transactions in the same or similar assets, evidence that the current market transactions do not represent fair value would be needed before an entity could use a broker price that was inconsistent with current market transactions in the same or a similar instrument. An entity might obtain further evidence of how well a broker quote represents fair value by considering how past prices supplied by that broker for the same or similar instruments have compared with subsequent actual transaction prices. However, if market conditions have changed, this might not provide strong evidence of how well the quote represents fair value.
- 63 Some broker quotes might be provided by the broker who originally brokered the instrument. In such circumstances, that broker might have the most detailed information about the instrument and hence might be best placed to arrive at a representationally faithful price. However, the entity still looks for evidence to corroborate the quote, or if no evidence exists, the entity seeks to understand how the price was determined and whether it meets the objective of a fair value measurement.

### **Pricing services**

- 64 Pricing services differ from brokers in that pricing services do not transact in the instruments for which they provide pricing information. There are two main types of pricing service:
- (a) pricing services that use a proprietary model to estimate a price.
  - (b) consensus pricing services.

### ***Pricing services using proprietary models***

- 65 The considerations for using pricing services that are based on a proprietary model are similar to the considerations for prices obtained from brokers, although it might be that a pricing service is prepared to be more willing to share information about its model than a broker normally is. This is partly because pricing services typically provide prices on a wider range of simpler instruments for which widely accepted standard pricing models are used. However, because of this, some pricing services might use general assumptions across a range of assets, potentially resulting in prices that might not accurately reflect the instrument being valued. As with broker quotes, an entity considers whether the price from a pricing service represents the price at which an orderly transaction would take place between market participants on the measurement date.

## Part 1: Measurement

- 66 An entity considers whether valuations provided by pricing services incorporate recent market events or whether the inputs and assumptions used are out of date. This involves understanding their process for updating the valuations to reflect movements in market conditions and how frequently this is performed. The more time that has elapsed between the data used to price the instrument and the measurement date, the less likely the value arrived at is to reflect a price that could be obtained in a current market transaction. This can be a problem for services that update prices only periodically.
- 67 As with broker quotes, an entity might obtain further evidence of fair value obtained from a pricing service by considering how past prices for the same or similar instruments have compared with subsequent actual transaction prices. The maturity of the pricing service might also be a consideration in assessing the price, because the longer a pricing service has been in existence, the more time it has had to develop the pricing expertise to measure fair value.

### *Consensus pricing services*

- 68 Consensus pricing services obtain pricing information about an instrument from several participating entities (subscribers). Each subscriber submits prices to the pricing service. The pricing service treats this information confidentially. The pricing service returns to each subscriber the consensus price, which is usually an arithmetical average of the data after a data cleansing routine has been employed, and submission statistics that provide information about the quality of each subscriber's submission compared with the other subscribers. This information might include standard deviations or other data that allows the subscriber to assess whether the prices submitted to the service provider were dispersed or whether they formed a tight cluster. When consensus data are widely dispersed, the consensus price might be more subjective and need further review.
- 69 For some markets, such as for exotic derivatives, consensus pricing services might constitute the best available data. However, many factors are considered when assessing the representational faithfulness of the consensus prices, for example, whether the prices submitted by the consensus subscribers reflect actual transactions or just indicative prices based on their own models.
- 70 The number of sources from which prices have been obtained and the quality of the sources are key factors in the quality of the consensus data. A consensus price determined from a large number of high quality subscribers might provide a more representationally faithful price than a consensus of only a few subscribers. However, although a consensus price might be derived from a large number of different subscribers, if none is a leading participant in the relevant market then the consensus price might not be meaningful. For example, for some instruments in the commodities markets there are only a limited number of subscribers and those subscribers are leading market participants. However, consensus pricing services might receive submissions from many other subscribers. In such circumstances, it is possible that many of the submissions received by the pricing service will not reflect actual transactions and an entity places less reliance on these when measuring fair value.
- 71 Consensus pricing service providers might use data cleansing routines (algorithms) to eliminate outlying prices, with the aim of increasing the reliability of the consensus data. An entity assesses whether the cleansing routines bias the data in any way and whether the cleansing procedures are meaningful. A cleansing routine

that is too strict could remove valid data from the consensus price. Conversely, a cleansing routine that is not rigorous enough might include weak data in arriving at the consensus price.

- 72 When assessing consensus data it is important to understand what the prices submitted represent. For example, submitted prices might represent a mid-level price rather than a bid price or an offer price.
- 73 Figure 3 contains an example of using consensus data in a fair value measurement.

On occasion, consensus data might indicate that the distribution of prices might not be normal in the statistical sense. One example of this is when the data indicate that the distribution of prices received from consensus pricing services is bimodal, ie the submitted prices are clustered around two differing price points. If so, the average price is a price at which nobody will trade. In such circumstances, it is possible that participating entities are using two different types of model to arrive at prices.

Consensus pricing distributions might not be normal. As a result, an entity should use its general market knowledge when interpreting consensus prices to ensure that its model arrives at the price that represents the price at which an orderly transaction would take place between market participants at the measurement date

**Figure 3 Using consensus pricing data**

- 74 Consensus services might exist for only a relatively small subset of products, for example for a limited range of maturities. An entity is therefore sometimes faced with the problem of whether it can use consensus information about one instrument and apply this information to another instrument. When the consensus data have been found to be a faithful representation of the price at which an orderly transaction would take place between market participants, the information can be used to calibrate models used to price similar instruments. However, calibrating models to consensus data is not always straightforward. For simpler products when the industry has converged on a common modelling approach, it is possible to calibrate models with some confidence. But it is harder to do this for more complex products with more complex models, and in such cases calibration might be highly subjective.

## Changes in own credit

- 75 One component of the fair value of an entity's financial liabilities is the credit spread that market participants would require to take on the credit risk of the instrument. There are various potential sources for reflecting own credit in the valuation of liabilities. These include, for example, the senior debt issue curve of the entity, credit default swap spreads, structured loan note issue curves and asset swap spreads.
- 76 Different types of curves might be appropriate for different entities and instruments depending on the quality of data available and the instrument being valued. An entity takes into account the varying sensitivities of different liabilities to its own credit risk in evaluating which source of credit data provides the most relevant and representationally faithful information that market participants would use to reflect the entity's credit risk in measuring the fair value of the instrument. For example,

## Part 1: Measurement

liquid CDS spreads might not be available for some entities and a debt issuance curve might be the best source. Whatever the source of data used, an entity uses judgement to consider whether the credit spread needs adjustment to reflect the particular instrument being valued. For an entity for which limited information is available, it might be necessary to look to information available for other entities with similar risk characteristics. If secondary trading in structured debt exists, there might be sufficient market data to use the structured debt market.

- 77 Entities take into account the varying sensitivities of different liabilities to own credit risk in evaluating which source of credit data provides the most relevant and representationally faithful information. The credit spread applied is based on the amount a market participant would require for the particular instrument.
- 78 Figure 4 contains an example of using credit spreads in pricing structured notes.

Credit spreads used in pricing structured notes are generally tighter than the credit spread for an equivalent maturity 'vanilla' debt instrument or a CDS spread. This is due to the increased protection that is generally inherent in structured notes as compared to other debt instruments. Choosing the appropriate credit spread can have a significant effect on the fair value of a liability. A valuation using a CDS spread or an asset swap spread might result in a lower fair value for the liability than using a structured note spread. It is therefore important to evaluate carefully the appropriate credit spread to be used for a particular instrument.

**Figure 4 Pricing structured notes**

- 79 When adjusting for own credit, it is also important to consider the collateralisation of the liabilities being valued. For example, if the collateral is 'ring fenced' (ie legally separated from the issuer), this might reduce the exposure to credit risk. In addition, if liabilities are subject to a daily collateralisation process, there might not be a material own credit adjustment because the counterparty is protected from loss in the event of default. However, collateral provided to one counterparty is not available to other counterparties. Thus, although some collateralised liabilities might not be subject to significant credit risk, the existence of that collateral might affect the credit risk of other liabilities.
- 80 There is some inconsistency in practice about whether entities make adjustments for own credit when valuing derivative liabilities. A fair value includes the effect of own credit risk. An entity that does not include own credit when valuing derivatives presumably does so because of credit enhancements (eg posted collateral) or it has concluded that the effect is not material. When the market for the liability has become inactive, it might be necessary for an entity to reconsider this assumption because the effect of own credit on valuations changes over time as market conditions change.



## Using models

- 81 When there is not an active market for a financial instrument, or when significant adjustments need to be made to observable inputs, fair values are determined using a valuation technique which might be based primarily on management's internal assumptions about future cash flows and appropriately risk-adjusted discount rates. This is commonly referred to as 'mark-to-model'. The fair value measurement objective is the same for a model-based valuation technique as for a valuation using quoted prices in an active market. Regardless of the valuation technique used, that technique reflects current market conditions and appropriate risk adjustments that market participants would make for credit and liquidity risks.
- 82 When possible, an entity uses more than one model to allow cross-checking of modelled prices, helping to ensure that a particular model does not introduce bias into the measurement. When using more than one model to measure fair value, an entity places greater weight on those models with more observable inputs than those with unobservable inputs.
- 83 Figure 5 contains an example of using a valuation technique to measure the fair value of a mortgage loan.

There is generally no observable secondary market price for a mortgage loan. Therefore, a valuation technique is necessary to measure fair value. The valuation model used might need to consider factors such as the underwriting criteria, including credit scores of borrowers and the loan-to-collateral value ratios of the mortgages, the repayment process, the recovery process, house price movements, the geographical location of the collateral, and the general economic outlook. All of these factors affect expectations about the probability of default and loss severity and therefore will affect the fair value of the mortgages. The valuation model should attempt to take into account all factors that market participants would consider when pricing the asset. To the extent that observable inputs are available, they should be incorporated into the model. Related indices might provide information on movements in market factors since the mortgages were originated. However, the assessment of the extent to which the mortgages correlate to any index used requires careful consideration.

*Figure 5 Using a valuation technique to measure the fair value of mortgage loans*

### Discounted cash flow methodologies

- 84 A commonly used valuation technique is a discounted cash flow model. There are differing discounted cash flow methodologies. In simple terms, some use contractual (or most likely) cash flows and a market rate of return to arrive at fair value. Others use probability-weighted cash flows and a risk free rate of return to arrive at fair value. Regardless of the methodology used, the objective is the same: to arrive at the price at which an orderly transaction would take place between market participants at the measurement date. When applying a discounted cash flow methodology, an entity primarily uses management's internal assumptions about future cash flows and an appropriate market rate of return.
- 85 Factors that might affect the market rate of return or probability-weighted cash flows to be used are:

## Part 1: Measurement

- (a) the timing of cash flows for the instrument.
  - (b) any uncertainty about the amount and timing of the cash flows.
  - (c) the risk that payments will not be made when due (credit risk).
  - (d) the liquidity of the instrument.
  - (e) the currency in which payments are to be made.
- 86 Estimating an appropriate market rate of return or probability-weighted cash flows can be difficult and requires judgement. If there are observable prices for similar instruments, these can be used as evidence of the market rate of return to be used.
- 87 Figure 6 contains an example of estimating the market rate of return on an asset backed security (ABS).

An entity holds an ABS for which there are no current or recent observable transactions. The entity has identified a similar ABS for which there are current observable transactions and wishes to use this information to estimate the appropriate current spread that would apply to the ABS it holds and the assumptions of market participants about expected losses.

The similar ABS is trading at a discount of 10 to its original issue price and nominal amount of 100 (this example assumes that losses expected at inception are minimal). If market participants estimate that expected losses on the similar security are 6, then 6 of the discount relates to expected losses and 4 relates to the increased yield required in the current market. If market participants assume that there are no expected losses, then the entire 10 discount relates to the increased spread market participants currently require. Therefore, without visibility about market participants' assumptions, these two elements that make up the discount (expected losses and spread) cannot be separated.

The fair value measurement considers, either together or separately, both the expected losses assumed by market participants and the spread that market participants require for the risk that the actual losses might exceed the expected losses (ie liquidity risk).

**Figure 6 Estimating yields on asset backed securities.**

## Calibration

- 88 When using a model, either to value an instrument or as part of the evidence to support the valuation of an instrument, an entity verifies the inputs to the model and tests whether the model reflects current market conditions. This can be done, for example, by applying the model to a similar instrument for which pricing information is available. This is referred to as calibration of the model. If the model appropriately reflects current market conditions, it should produce a price that approximates the available market price for the similar instrument.
- 89 Figure 7 contains an example of calibrating a model when measuring the fair value of convertible bonds.

An entity has an investment in convertible bonds. There are infrequent transactions in the bonds. As a result, the entity uses a model to measure their fair value at each measurement date. The issuer of the convertible bonds has issued debt securities of similar subordination to the convertible bonds for which prices are more observable, and it is possible to observe prices of the issuing entity's equity options. The model used to measure the fair value of the convertible bonds would therefore be calibrated using any observable prices of the debt and/or equity components to ensure that it meets the objective of a fair value measurement. Even if the model can be calibrated through looking to observable data for the components of the bond, it might still be necessary to calibrate the model by looking to similar convertible bonds to consider whether a market price for the convertible bond might include a premium or a discount over the value of the components.

If there are no traded equity options of the issuer, the entity could use a model based on the equity price. The entity would then estimate the expected volatility of the equity price in order to measure the fair value of the equity component of the convertible bond. The expected volatility might be estimated with reference to the historical volatility of the entity's own equity price, although historical volatility is not always a good indicator of future volatility. Alternatively, expected volatility might be estimated by looking at the implied volatility of traded equity options on securities issued by similar entities.

**Figure 7 Calibrating a model for convertible bonds.**

## Changes in models and assumptions over time

- 90 Over time, the models used to measure fair value might evolve and change as modelling techniques are refined to reflect better the price at which an orderly transaction would take place between market participants on the measurement date. For example, a model might have appropriately reflected market conditions when markets were more liquid, but might not be as capable as an alternative model of reflecting market conditions when liquidity decreases. This might be the case even when the inputs used in the model are still available and observable. In such circumstances, using an alternative model might provide a better estimate of the fair value of the instrument.
- 91 When market conditions change, the assumptions used in models also might change. For example, if a particular assumption results in a reasonable range of values and the entity has always chosen the mid-point within that range when measuring fair value, it would be appropriate for the entity to move to another point within the range from one measurement date to the next only if there are objective reasons for doing so.
- 92 When an entity changes the models and/or assumptions used, this does not mean that the previous models and assumptions used resulted in fair values that were not appropriate. Changes to valuation techniques or assumptions from year to year are appropriate when an entity can demonstrate that the revised technique and assumptions provide a better estimate of fair value.

## Measuring the underlying components of an instrument

- 93 When a market becomes inactive, there might be little observable data for some instruments and this might make modelling the instrument as a whole difficult. In such circumstances, there might only be observable data for components of the instrument. For example, one approach to measure the fair value of collateralised debt is to measure the fair value of the collateral within the issue vehicle and assume that the value of the collateral would 'pass through' to the entities holding the collateralised debt.
- 94 In some cases, the collateral within a vehicle includes securities that trade independently from the vehicle and have observable prices. Even when the collateral within the vehicle does not trade outside of the vehicle, it might be possible to consider the prices of similar securities that are observable in the market.
- 95 Alternatively, it might be necessary to measure the fair value of the collateral by considering the economic characteristics of the collateral, such as asset type, industry sector, maturity, duration, credit rating and other characteristics. On the basis of the relevant economic characteristics of the instrument, the entity could identify relevant spreads or yields that would correspond to the collateral. These spreads might be available from, for example, market sources, pricing services or brokers.
- 96 A valuation technique based on collateral values is straightforward only if the value of the collateral is passed through directly to the holders of the instrument being valued. Although it might be possible to measure the fair value of the collateral, if different tranches of notes are issued from a vehicle, the differing levels of subordination of each affect how the value of the underlying assets is passed through to the different note holders.
- 97 The allocation of value across the different notes in an issue might be possible by looking at the pricing of notes with similar structures and similar underlying assets and using these prices to calibrate the model used to measure the fair value of the different notes.
- 98 Figure 8 contains an example of assessing the collateral in a structured investment vehicle.

A structured investment vehicle has issued four tranches of commercial paper. The collateral assets placed into the vehicle have a nominal value of 100. The top tranche of commercial paper receives the first 50 of cash flows. The second tranche receives the next 25, the third tranche receives the next 10 and the lowest tranche receives the final 15. Holders of the commercial paper have no claims on other assets if the collateral is insufficient to repay their investments in full. An assessment of the underlying collateral assets has been made and it is expected that 75 of cash flows will be received from the assets.

This does not imply that the first tranche has a value of 50, the second 25 and the third and fourth tranches have no value. Although 75 is the amount expected to be received, the amount actually received might vary from this. Therefore, the third tranche and even the fourth tranche might have value as there is likely to be some probability (even if very small) of receiving some cash flows if the assets perform better than expected. Any value attributed to the third and fourth tranches will reduce the value allocated to the first and second tranches as the overall fair value cannot exceed the fair value of the collateral (ie the present value of 75). This reflects the fact that the holders of the first and second tranches are exposed to the risk that the collateral assets perform less well than expected but do not benefit if the performance of the collateral is better than expected.

*Figure 8 Assessing the collateral in a structured investment vehicle*

## Valuation adjustments

- 99 Any value calculated using a model is adjusted for any factors that market participants would consider in setting a price if those factors are not captured by the model used. Depending on the model used, different adjustments might be required to estimate the price at which an orderly transaction would take place between market participants at the measurement date. Valuation adjustments include, for example:
- (a) **model adjustments:** if there is a known deficiency or if calibration has highlighted a deficiency, the model is adjusted to take it into account.
  - (b) **liquidity adjustments:** if the model calculates a mid-market price, it is adjusted to take into account the relevant bid-offer spread.
  - (c) **credit risk adjustments:** if the model does not take into account counterparty or own credit risk, it is adjusted accordingly.
  - (d) **other risk adjustments:** if the model does not take into account a risk premium that market participants would take into consideration in pricing the transaction (eg a risk premium relating to the complexity of valuation of an instrument), it is adjusted accordingly.
- 100 Adjustments are appropriate only to the extent that they are consistent with the objective of a fair value measurement. However, an adjustment is not appropriate if it moves the resulting measurement away from the objective of fair value measurement. In other words, no adjustment is made for conservatism or prudence. An entity calibrates valuation adjustments to available pricing information to test whether they appropriately reflect current market conditions.





## **Part 2: Disclosure**

## Disclosure summary

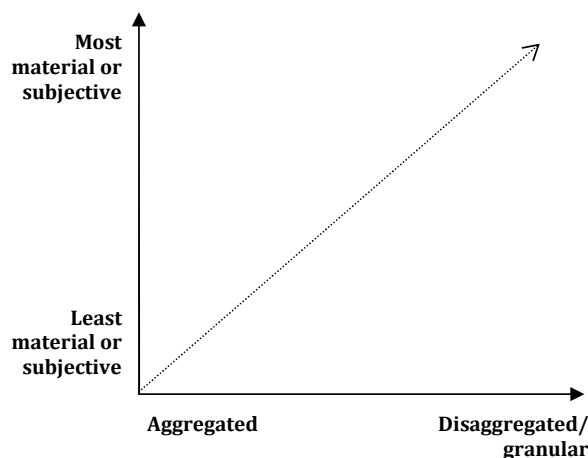
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- 101 The objective of disclosure is to help users of financial statements understand the techniques used and the judgements made in measuring fair value (although it is not the purpose of the disclosure to allow independent validation or recalculation of fair values).
- 102 IFRS 7 requires the disclosures given to be based on information provided internally to key management personnel, thereby requiring an entity to use judgement about what is disclosed and how. IFRS 7 also requires some prescriptive minimum disclosures to the extent that they are not already covered by the disclosures based on internal reporting. Requiring an entity to use judgement in deciding how it discloses information about fair value measurement allows the entity to provide the most relevant information in the most understandable format about how it measures fair value and the assumptions used to do so.
- 103 Providing enhanced and detailed disclosures about the fair value of financial instruments that are of particular interest to users helps meet the objective of disclosure. The instruments of particular interest will change over time as market conditions change and are likely to include those that are the focus of internal management reporting and that are receiving external market interest.
- 104 In addition, it would be helpful for an entity to consider the following when providing disclosures about financial instruments measured at fair value:
- (a) **the aggregation and granularity of disclosure:** aggregation of disclosures in a way that reflects how management views fair value measurements, while maintaining sufficient granularity.
  - (b) **the frequency of disclosure:** inclusion of disclosures similar to those in the annual financial statements in any interim financial statements when fair values have moved significantly and any new disclosures necessary to reflect changing market conditions.
  - (c) **disclosure of the control environment:** a description of the entity's governance and controls over the valuation processes.
  - (d) **disclosure of valuation techniques:** an understandable and suitably detailed description of the valuation techniques used in measuring fair values.
  - (e) **disclosure within a fair value hierarchy:** a quantitative (numerical) disclosure about fair value measurements in a tabular, hierarchical format. This disclosure is included in the proposed amendments to IFRS 7 (see Appendix 3).
  - (f) **a reconciliation of movements in the fair values of instruments measured using significant unobservable inputs:** a reconciliation of the carrying amounts from the start of the period to the fair values at the end of the period showing the increase or decrease in value caused by fair value gains and losses as well as other movements such as sales and purchases. This disclosure is included in the proposed amendments to IFRS 7 (see Appendix 3).



- (g) **disclosure of unobservable inputs:** a sufficiently detailed disclosure about the unobservable inputs used and how these have been estimated, as well as disclosure of the sensitivity of valuations to reasonably possible alternative unobservable inputs at an appropriate level of granularity.
- (h) **disclosure of changes in own credit risk:** an explanation of how movements in the fair value of liabilities caused by changes in the entity's own credit risk are calculated, and of the source of the inputs used in the calculation.

105 Generally, it is helpful for users if an entity provides more detailed disclosures for those fair value measurements that are most material and/or subjective.



106 IFRS 7 improved the disclosures for financial instruments, including those about fair value measurement. On 15 October 2008 the IASB issued an exposure draft of proposed amendments to IFRS 7, inviting comments by 15 December 2008. The IASB considered this report in developing the proposed amendments but the report does not pre-empt the amendments to IFRS 7, which will be subject to the normal due process of the IASB. The proposed amendments to the fair value disclosures in IFRS 7 are available on the IASB Website and have been reproduced in Appendix 3.

## **Enhanced disclosures about financial instruments when markets are no longer active**

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- 107 Not all classes of financial instruments need the same level of granularity of disclosure. Such an approach might result in either too little disclosure about some instruments (eg those for which detailed disclosure is important for users to understand the fair value measurement) or superfluous disclosure about other instruments (eg those for which detailed disclosure about fair value measurement is not necessary, such as for instruments with prices quoted in an active market).
- 108 Furthermore, the internal and external focus on particular financial instruments might change over time. Adjusting the level of detail of disclosure about different financial instruments to reflect this provides users with an appropriate level of information necessary to understand better the fair value measurements that are of most interest. For example, if the market for a particular type of instrument has become extremely volatile and there have been large increases in bid-offer spreads, or if there has been a significant decrease in liquidity, then the level of risk associated with the instrument and the difficulty in valuing the instrument are likely to have increased. Providing more detailed or enhanced disclosures about this type of instrument is likely to help users.
- 109 Disclosures about fair value measurement rely on an entity using its judgement to reflect the relative significance of different financial instruments. This involves identifying the instrument(s) and classes of instruments for which enhanced and more detailed disclosure about fair value measurement is of particular interest to users at the end of the reporting period. Disclosures about financial instruments are presented from the perspective of management and instruments of particular interest to users are likely to be those instruments on which greater emphasis is placed for the entity's internal management reporting. They are also likely to be the focus of users' questions.
- 110 The instruments of particular interest to users might differ from period to period. Although the significance of different instruments might change from period to period, it is important that information presented for different periods is comparable. However, the fact that an entity might not have the corresponding information for the prior period(s) does not prevent the disclosure of useful information in the current period.
- 111 Market practice has started to provide more detail about instruments currently of particular interest to users as a result of the demands of users for more transparency about fair value measurement. An entity can increase the usefulness of its fair value disclosures by responding quickly to the information demands of users as market conditions change over time.
- 112 Fair value measurement disclosures about instruments of particular interest to users can be enhanced by providing:
- (a) a detailed description of the instrument and its fair value.
  - (b) information about the valuation techniques used to measure fair values.

- (c) an explanation of the inputs used to measure fair values.
- 113 There is a variety of factors to consider in identifying the instruments that could be the focus of enhanced disclosure. For example:
- (a) **materiality:** the carrying amount of an instrument and the materiality of the related changes in fair value movements are considerations in determining how much disclosure to give about an instrument.
  - (b) **uncertainty and subjectivity:** the estimation of the fair value of the instrument could fall within a range of values depending on the selection of inputs or the model used, and the choice of inputs and models might involve significant judgement. For example, the valuation could be sensitive to a particular input that might not be observable and users might want a quantification of this sensitivity. Transparent disclosure of the judgements made helps users understand the significance of the judgements.
  - (c) **observability of inputs:** when unobservable inputs are used to measure instruments and the inputs are difficult to estimate or could fall within a wide range, users might want transparent disclosure about how the inputs are estimated. If an entity uses unobservable inputs when measuring fair value, an explanation of how they were determined and the effect of movements in those inputs provides greater transparency about the measurement.
  - (d) **complexity:** the more complex an instrument, the more likely that it is difficult to value. Consequently, more detailed disclosure helps users understand the fair value measurement.
  - (e) **price volatility, increases in bid-offer spreads or reductions in liquidity:** instruments with significant price volatility have the capability of generating the largest fair value movements and hence are often the focus of both internal and external scrutiny, particularly with regard to understanding the movements in value over the period. Other changes in market conditions, such as increases in bid-offer spreads or reductions in liquidity, might indicate a disturbance in the market and consequently result in more interest in the disclosures about the fair values.

### Description of instruments of particular interest to users

- 114 When providing more detailed or enhanced fair value disclosures about instruments of particular interest to users, it might be helpful to users of the information to include an explanation of why the entity considers these instruments to be particular interest to users and the criteria it has applied to identify instruments for which additional disclosure would be useful.
- 115 For instruments of particular interest to users, a detailed description of the terms of the instruments gives a better understanding of what the instruments are and facilitates comparability between entities. In addition to numerical disclosure of the carrying amount of the instruments and the changes in their carrying amounts, numerical disclosure of other important terms of an instrument, for example the notional amount of a debt instrument, might give users a better understanding of the fair value measurement.

## Part 2: Disclosure

- 116 If the cash flows of an instrument are generated from or secured by specific underlying assets, more detailed information about factors that might affect the value of those underlying assets, such as the maturity, vintage or location of the assets, might help users to assess better the fair value measurement of the asset. For example, an entity might have invested in a structured investment vehicle that issued notes backed by underlying mortgage loans originated in 2004. Such a vehicle might be described as a 2004 vintage. However, the vehicle might be a revolving structure with the original loans being replaced by loans originated in 2007. These loans might be significantly more or less risky than loans originated in 2004 (eg because of changes in economic conditions) and hence disclosure of the collateral vintage together with an explanation of how risky the collateral is might help users understand the value drivers and risks of the notes.
- 117 Figure 9 contains an example of a disclosure about instruments of particular interest to users.

**The Royal Bank of Scotland Group plc**  
**Annual Report and Accounts 2007**  
**Extract from 'Fair value – Financial instruments'**

**RBS Group plc super senior tranche exposures to CDOs**

Super senior tranches of asset-backed CDOs - the Group is a participant in the US asset-backed securities market: buying residential mortgage-backed securities ('RMBS'), including securities backed by US sub-prime mortgages, and repackaging them into collateralised debt obligations ('CDOs') for sale to investors. The Group retains exposure to some of the super senior tranches of these CDOs. In the second half of 2007, rising mortgage delinquencies and expectations of declining house prices in the US led to a deterioration of the estimated fair value of these exposures. An analysis of the Group's super senior tranche exposures to these CDOs is shown below:

	<b>HIGH GRADE</b>	<b>MEZZANINE</b>
Exposure (£m)	6,420	3,040
Exposure after hedges (£m)	3,073	1,790
Weighted average attachment point (1)	29%	46%
% of underlying RMBS sub-prime assets	69%	91%
Of which originated in:		
– 2005 and earlier	24%	23%
– 2006	28%	69%
– 2007	48%	8%
Collateral by rating:		
– investment grade	98%	31%
– non-investment grade	2%	69%
Net exposure (£m)	2,581	1,253
Effective attachment point post write down	40%	62%

**Note (1)** Attachment point is the minimum level of losses in a portfolio to which a tranche is exposed, as a percentage of the total notional size of the portfolio. For example, a 5-10% tranche has an attachment point of 5% and a detachment point of 10%. When the accumulated loss of the reference pool is no more than 5% of the total initial notional of the pool, the tranche will not be affected. However, when the loss has exceeded 5%, any further loss will be deducted from the tranche's notional principal until the detachment point, 10% is reached.

The Group's valuation of the super senior asset-backed CDO exposures takes into consideration outputs from a proprietary model, market data and appropriate valuation adjustments. There is significant subjectivity in the valuation with very little market activity to provide support for fair value levels at which willing buyers and sellers would transact. The Group's proprietary model predicts the expected cash flows of the underlying mortgages using assumptions about future macroeconomic conditions (including house price appreciation and depreciation) and defaults/delinquencies on these underlying mortgages derived from publicly available data. The resulting cash flows are discounted using a risk adjusted rate. Alternative valuations have been produced using reasonably possible alternative assumptions about macroeconomic conditions including house price appreciation and depreciation, and the effect of regional variations. In addition, the discount rate applied to the model output has been stressed. The output from using these alternative assumptions has been compared with inferred pricing from other published data. The Group believes that reasonably possible alternative assumptions could reduce or increase predicted cumulative losses from the model by up to 20%. Using these alternative assumptions would reduce the fair value by up to £385 million or increase the fair value by up to £235 million.

**Figure 9 Disclosure about financial instruments of particular interest to users**

## Disclosure of valuation techniques

- 118 A discussion of the valuation techniques used is critical to meeting the objective of helping users understand the techniques used and the judgements made in measuring fair values, particularly those valuation techniques used to measure the fair value of instruments that are of particular interest to users.
- 119 Instruments of particular interest to users are likely to include those instruments that have been most affected by changing market conditions. As a result, the valuation techniques used to measure the fair values of these instruments might have changed. Users are likely to want to know which techniques used to measure the fair values of instruments have changed and why in order to assess the effect of any changes.

## Disclosure of inputs used

- 120 Selecting the appropriate inputs for a valuation technique requires judgement and can have a material effect on a fair value measurement. An area of focus for users of financial statements is the extent to which an entity uses unobservable inputs in valuation techniques when measuring fair values and the sources of those inputs. Unobservable inputs are those inputs that are used in a valuation technique that are not supported by a current, observable market transaction.

- 121 It is likely that the fair value of many of the instruments of particular interest to users will be measured using one or more significant unobservable inputs. In addition, instruments of particular interest to users are likely to include those instruments with unobservable inputs that are subjective or difficult to estimate. For those unobservable inputs that are most difficult to estimate and could have a significant effect on the fair values recognised, transparent disclosure about those inputs can provide useful information about the risks arising from those instruments and the representational faithfulness of the measurement. Such a disclosure might include, for example, more detail about the source of the inputs used (or the techniques used to estimate the inputs) and the degree of certainty with which the input can be estimated (eg a confidence interval).
- 122 An entity is required to disclose whether a change in unobservable inputs to a reasonably possible alternative assumption would change the fair value significantly, and if so, by what amount. General considerations about this sensitivity disclosure are considered below. However, for those instruments that an entity identifies as being of particular interest to users, additional granularity of this disclosure might enable users to understand better the sensitivity of those instruments to unobservable inputs.

## General disclosures about fair value measurement

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### Aggregation and granularity of disclosure

- 123 An entity decides, on the basis of its particular circumstances, how much detail it should disclose, how much emphasis it should place on different aspects of the disclosure requirements and how much aggregation it should undertake to meet the objective of helping users understand the techniques used and the judgements made in measuring fair values.
- 124 To do this, an entity determines the most appropriate way to aggregate the information given for each disclosure. For some disclosures, accounting standards require at least a specified minimum level of disaggregation, although an entity might consider whether this minimum level provides adequate transparency. For other disclosures, the method of aggregation depends on how the entity is structured, the way it reports internally to management and how it manages its risk and valuation processes. One particular method is not necessarily better than another and the best information often reflects the way that management reports internally. By structuring the disclosures in this way, an entity provides useful information to users of financial statements about how the entity views and manages its valuation processes and risks. Whatever method is used to aggregate information for disclosure purposes, it will be more helpful to users if it is reconciled to the statement of financial position.
- 125 Whatever the approach to the aggregation of disclosures, an entity's careful consideration of the presentation and format of the information helps users to understand and locate the information more easily. Presentation of disclosures in a logical and consistent manner, for example through a clear linkage between the qualitative and quantitative disclosures, results in disclosures that are easy for users to follow.
- 126 Once an entity has determined how to aggregate the information in the disclosures, it can then determine the level of granularity of the disclosures. Simply providing disclosures at a line item level consistent with the statement of financial position is unlikely to meet the objective of helping users understand the techniques used and the judgements made in measuring fair values. It is likely that within any line item there are instruments with significantly different characteristics or for which the fair value estimation process is quite different. When aggregating information into classes of instruments for disclosure purposes, it is important to consider whether the instruments have similar characteristics, such as the valuation techniques, inputs or other matters, that are the focus of the particular disclosure.
- 127 Although a highly summarised disclosure does not provide the most useful information to users of financial statements and might obscure important information, excessive disclosure can also be detrimental. Disclosures that are too detailed can confuse users and might mean that important disclosures are lost or difficult to identify. The level of detail might vary depending upon the nature of the instruments or risks to which the disclosures relate, and the focus on particular instruments might change over time.

## Frequency of disclosure

- 128 To the extent that the fair value of a financial asset or liability has changed materially since the end of the annual reporting period, some or all of the quantitative and qualitative disclosures provided in the annual financial statements might also be helpful to the users of an entity's interim financial reports. For instruments of particular interest to users, an entity might also consider providing updated fair value disclosures even if the fair values have not changed significantly since the end of the annual reporting period.
- 129 An entity that prepares interim financial reports in accordance with IAS 34 *Interim Financial Reporting* is required to provide an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the entity since the end of the last annual reporting period. Therefore, when fair values have moved significantly, providing disclosures similar to those in the annual financial statements provides transparency about these movements. Furthermore, changing market conditions might make it helpful to provide additional or more detailed disclosures than those given in the previous annual financial statements.

## Disclosure of the control environment

- 130 There is an increasing demand from users of financial statements to understand more about the governance and controls over the valuation processes within an entity. An understanding of the governance and controls in place provides useful information about the quality of reported fair values and allows users to ascertain why management is satisfied that the values reported are representationally faithful.
- 131 Current market practice in this area is limited and an entity could usefully provide information about its overall control environment, particularly as it applies to the identified classes of financial instruments for which enhanced fair value disclosures are provided (ie those instruments that are of particular interest to users). Providing more clarity about controls over the estimation of fair values of instruments that are of particular interest is likely to reflect the increased controls that the entity has put in place for its complex valuations and/or valuations based on significant unobservable inputs.
- 132 The types of controls that an entity could consider disclosing, depending on its individual control structure, include, for example:
- (a) a description of the governance group that is responsible for valuation policies and procedures and to whom the group reports.
  - (b) the verification of fair value measures by internal or external experts: for example, the extent to which independent valuation control functions challenge or re-perform valuations and whether the functions are independent of the front office.
  - (c) the frequency and methods for calibration and back testing of valuation models.
  - (d) the process for analysing valuation movements: for example, the analysis performed when significant movement thresholds are reached.



- (e) the extent to which other valuation testing procedures are applied: for example, the percentage coverage achieved through testing procedures.
- (f) the internal reporting procedures in place for fair value measurements: for example, whether pricing, risk management or audit committees discuss valuations containing significant unobservable inputs which might have a significant effect on the financial results of the entity.
- (g) the methods and techniques used to substantiate unobservable inputs: for example, the extent to which unobservable inputs are verified by pricing committees or external bodies and the range of possible values or confidence intervals.

133 Figure 10 contains an example of a disclosure about an entity's control procedures.

**HSBC Holdings plc  
Interim Report 2008  
Extract from 'Impact of Market Turmoil'**

**Control framework**

Fair values are subject to a control framework designed to ensure that they are either determined, or validated, by a function independent of the risk taker. To this end, ultimate responsibility for the determination of fair values lies with Finance, which reports functionally to the Group Finance Director. Finance establishes the accounting policies and procedures governing valuation, and is responsible for ensuring that these comply with all relevant accounting standards.

For fair values determined by reference to external quotation or evidenced pricing parameters, independent price determination or validation is utilised. In less liquid markets, direct observation of a traded price may not be possible. In these circumstances, HSBC will source alternative market information to validate the financial instrument's fair value. Greater weight will be given to information that is considered to be more relevant and reliable. The factors that are considered in this regard are, inter alia:

- the extent to which prices may be expected to represent genuine traded or tradable prices;
- the degree of similarity between financial instruments;
- the degree of consistency between different sources;
- the process followed by the pricing provider to derive the data;
- the elapsed time between the date to which the market data relates and the balance sheet date; and
- the manner in which the data was sourced.

The results of the independent price validation process is reported to senior management, and adjustments to fair values resulting from considerations of the above information are recorded where appropriate.

For fair values determined using a valuation model, the model being a logical framework for the capture and processing of necessary valuation inputs, the control framework may include, as applicable, independent development or validation of the logic within valuation models, the inputs to those models, any adjustments required outside the valuation models, and, where possible, model outputs.

The results of the independent validation process are reported to, and considered by, Valuation Committees. Valuation Committees are composed of valuation experts from several independent support functions (Product Control, Market Risk Management, Derivative Model Review Group and Finance) in addition to senior trading management. Any adjustments made to the assessed fair values as a result of the validation process are reported to senior management.

*Figure 10 Disclosure about control procedures.*

## Disclosure of valuation techniques

- 134 A discussion of the valuation techniques used is important to meet the objective of helping users understand the techniques used and the judgements made in measuring fair values. An entity is required to make this disclosure for each class of financial instrument. For those financial instruments of particular interest to users, more detailed disclosure will be helpful.
- 135 Items to consider when disclosing information about valuation techniques include, for example:
- (a) whether there is a choice of valuation techniques and how that choice is made.
  - (b) a description of the risks or shortcomings (if any) of the selected valuation technique.
  - (c) if there has been a change to the valuation technique from previous reporting periods, the reason for making the change.
  - (d) the frequency and methods used to calibrate models to market prices.
  - (e) a description of the use of broker quotes or pricing services: for example:
    - i the number of quotes obtained, how the quotes are verified, what brokers or pricing services are used and why.
    - ii a general description of the valuation techniques used by brokers and pricing services, if known, and the extent to which they used observable versus unobservable market information in determining the price.
    - iii when prices for similar instruments are used to measure fair value, how these prices are adjusted to reflect the characteristics of the instruments subject to measurement.

- (f) when adjustments are made to model values for factors that the model does not incorporate, what these factors are and how the adjustments are made.
- (g) a description of the facts and circumstances that led to the determination that the market is active or inactive.
- (h) the criteria used in considering whether an observed transaction was forced, and therefore not used in the fair value measurement.

136 Figure 11 contains an example of a disclosure about valuation techniques and inputs.

**UBS AG**

**Q2 2008 Financial Reporting**

**Extract from note 10b – Valuation Techniques and Inputs**

Where possible, financial instruments are marked at prices quoted in active markets. In the current market environment, such price information is typically not available for all instruments linked to the US residential mortgage market, and UBS applies valuation techniques to measure such instruments. Valuation techniques use “market observable inputs”, where available, derived from similar assets in similar and active markets, from recent transaction prices for comparable items or from other observable market data. For positions where observable reference data are not available for some or all parameters, UBS estimates the non-market observable inputs used in its valuation models.

For the period ended 30 June 2008, UBS used valuation models primarily for super senior RMBS [residential mortgage backed securities] CDO [collateralised debt obligation] tranches referenced to sub-prime RMBSs. The model used to value some of these positions projects losses on the underlying mortgage pools and applies the implications of these projected lifetime losses through to the RMBS and then to the CDO structure. The primary inputs to the model are monthly statistical data on delinquency rates, foreclosure rates and actual losses that describe the current performance of the underlying mortgage pools. These are received near the end of each month and relate to the preceding month’s cash flows on the mortgages underlying each RMBS. The other key factor input to the model is an estimate of loss given default, which is a non-market observable input.

In fourth quarter 2007 and first half 2008, UBS used relevant ABX market indices to calibrate its loss projections to ensure that the super senior RMBS CDO model is consistent with observed levels of the indices in the market. Despite the various limitations in the comparability of these indices to UBS’s own positions, it was felt that this was the best approach in view of the further deterioration in liquidity and resultant lack of observed transactions to which the model could be calibrated.

The valuation model also considers the impact of variability in projected lifetime loss levels and applies a discount rate for expected cash flows derived from relevant market index prices to value expected cash flows. The external ratings of the RMBSs underlying the CDO tranches or the CDO tranches themselves are inputs to the valuation model only to the extent that they indicate the likely timing of potential “events of default”.

The valuation model incorporates the potential timing and impact of such default events based on an analysis of the contractual rights of various parties to the transaction and the estimated performance of the underlying collateral. There is no single market standard for valuation models in this area, such models have inherent limitations, and different assumptions and inputs would generate different results. The super senior RMBS CDO valuation model is used to value a portion of UBS's net long exposures to super senior RMBS CDOs and in cases where UBS holds a gross long position in a super senior RMBS CDO hedged one-to-one with an offsetting short position (since this valuation is necessary to calculate any related credit valuation adjustments).

In cases where liquidation of the RMBS CDO is deemed imminent, and where it is possible to obtain reliable pricing of the underlying instruments, the super senior RMBS CDO valuation model is superseded. Instead, valuation in these cases is based on the estimated aggregate proceeds of the liquidation (using current fair value estimates of the underlying instruments) less any estimated expenses associated with the liquidation.

**Figure 11 Disclosure about valuation techniques and inputs.**

- 137 As market conditions change, valuation techniques might change and, if so, it is important that users are able to understand how and why the techniques have changed. For example, this might be important when an entity previously relied solely on a quoted price in an active market and now must use a model.
- 138 Descriptions of valuation techniques are most helpful to users if they are meaningful and do not become generic. Equally, disclosures should be understandable and the descriptions of valuation techniques might need to be simplified to enable this. For generally accepted and standard valuation techniques, a brief description of the techniques used is likely to be adequate.

### **Disclosure within a fair value hierarchy**

- 139 SFAS 157 in US GAAP contains an explicit three-level fair value hierarchy which groups fair value measurements based on their observability and requires numerical disclosure of fair values recognised in a tabular format organised by the level within the fair value hierarchy. The three levels are as follows:
- (a) **Level 1:** quoted prices (unadjusted) in active markets for identical assets or liabilities.
  - (b) **Level 2:** inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
  - (c) **Level 3:** significant unobservable inputs for the asset or liability.
- 140 This provides a simple and effective presentation to users.
- 141 The fair value disclosure requirements in IFRS 7 currently distinguish between fair values measured by reference to price quotations in an active market and those estimated using valuation techniques, with additional disclosures about the potential effect on profit or loss required for those valuations based on unobservable inputs. IFRS 7 does not require a tabular disclosure of fair values

based on a fair value hierarchy. The IASB has issued an exposure draft of proposed amendments to IFRS 7, including the introduction of an explicit three-level hierarchy for disclosure purposes consistent with SFAS 157. The exposure draft is open to public consultation until 15 December 2008. In the meantime, some entities reporting under IFRSs have provided disclosures similar to those required by SFAS 157. Current practice is not consistent in this area and in some cases numerical information of the fair values of financial instruments within each level of the fair value hierarchy can be difficult to derive from the narrative disclosures provided. Such quantitative disclosures would provide users with greater insight into the dependence of fair values on unobservable data.

- 142 A valuation technique might incorporate both observable market data and unobservable inputs. When an unobservable input is significant to the fair value measurement, the resulting valuation is categorised into the lowest level of the hierarchy. Assessing the significance of inputs requires judgement. Disclosure of the criteria adopted to determine whether any unobservable inputs are significant enough to cause an instrument to be categorised in the lowest level of the hierarchy aids comparability across entities and across individual entities over time. In addition, a description of what an entity includes in each level of the hierarchy and the basis for determining which instruments are categorised in each level allows users to understand the information presented.

143 Figure 12 contains an example of a disclosure using a fair value hierarchy.

<b>The Royal Bank of Scotland Group plc</b> <b>Annual Report and Accounts 2007</b> <b>Extract from 'Fair value – Financial instruments'</b>				
	Quoted prices in active markets (1)	Valuation techniques based on observable market data (2)	Valuation techniques incorporating information other than observable market data (3)	Total
<b>Financial instruments measured at fair value</b>	<b>£bn</b>	<b>£bn</b>	<b>£bn</b>	<b>£bn</b>
<b>Assets</b>				
<i>Fair value through profit or loss</i>				
Loans and advances to banks	—	71.5	0.1	71.6
Loans and advances to customers	—	94.4	13.1	107.5
Treasury and other eligible bills and debt securities	83.1	101.7	11.6	196.4
Equity shares	36.5	8.1	0.8	45.4
Derivatives	1.9	330.3	5.2	337.4
<i>Available-for-sale</i>				
Treasury and other eligible bills and debt securities	32.1	62.4	1.1	95.6
Equity shares	5.8	1.0	0.8	7.6
	<u>159.4</u>	<u>669.4</u>	<u>32.7</u>	<u>861.5</u>
<b>Liabilities</b>				
Deposits by banks and customer accounts	—	131.9	1.5	133.4
Debt securities in issue	—	42.1	9.2	51.3
Short positions	63.6	9.9	—	73.5
Derivatives	2.1	325.6	4.4	332.1
Other financial liabilities (4)	—	0.9	0.2	1.1
	<u>65.7</u>	<u>510.4</u>	<u>15.3</u>	<u>591.4</u>
Notes:				
(1) Financial assets and financial liabilities valued using unadjusted quoted prices in active markets for identical assets or liabilities. This category includes listed equity shares, exchange-traded derivatives, UK, US and certain other government securities, and US agency securities in active markets.				
(2) Financial assets and financial liabilities valued using techniques based on observable market data. Instruments in this category are valued using:				
(a) quoted prices for similar assets or liabilities, or identical assets or liabilities in markets which are considered to be less than active; or				
(b) valuation techniques where all the inputs that have a significant effect on the valuation are directly or indirectly based on observable market data.				
Financial assets and financial liabilities in this category include repos, reverse repos, structured and US commercial mortgage loans, structured deposits, investment contracts issued by the Group's life assurance businesses, corporate and municipal debt securities, most debt securities in issue, certain unlisted equity shares for which recent market data are available, the majority of the Group's OTC derivatives and certain instruments listed in (1) above where markets are considered to be less than active.				

- (3) Valuation techniques incorporating information other than observable market data are used for instruments where at least one input (which could have a significant effect on the instrument's valuation) cannot be based on observable market data. Where inputs can be observed from market data without undue cost and effort, the observed input is used; if not, the input is estimated. Financial assets and liabilities in this category include certain syndicated and commercial mortgage loans, unlisted equity shares, certain residual interests in securitisations, super senior tranches of high grade and mezzanine collateralised debt obligations (CDOs) and other sub-prime trading inventory, less liquid debt securities, certain structured debt securities in issue and OTC derivatives where valuation depends upon unobservable inputs such as certain long dated and exotic contracts. No gain or loss is recognised on the initial recognition of a financial instrument valued using a technique incorporating significant unobservable data.
- (4) Other financial liabilities comprise subordinated liabilities and provisions relating to undrawn syndicated loan facilities.

*Figure 12 Disclosure of IFRS fair value hierarchy.*

### **Reconciliation of movements in the fair values of instruments measured using significant unobservable inputs**

- 144 When a fair value measurement uses a valuation technique based significantly on inputs that are unobservable (ie those inputs that are used in a valuation technique and that are not supported by a current, observable market transaction), an entity is required to disclose the movement in fair value recognised in profit or loss during the period. Presenting this information in the form of a reconciliation of movements in fair values enables users to understand those movements during the period. Such a reconciliation might show:
- (a) total gains and losses for the period, separated into:
    - (i) those that have been realised (eg through sale of a financial asset) and those that are unrealised and
    - (ii) those included in profit or loss and those included in other comprehensive income. This is most helpful for users if an entity discloses where within these statements these gains or losses are presented.
  - (b) movements due to purchases, sales, issues and settlements. This is most helpful for users if it is not presented as a single net amount.
  - (c) transfers (or movements) into and out of this level of the hierarchy (for example, transfers due to changes in the observability of significant inputs).
- 145 Disclosing the movements into and out of the lowest level of the hierarchy highlights when valuations might have become more or less representationally faithful and reflects changes in economic conditions and markets. It is also helpful for users if an entity provides a narrative description of why any movements have taken place, both for fair values based on significant unobservable inputs and for movements to and from other levels of the hierarchy.

## Part 2: Disclosure

- 146 Users might also benefit from narrative disclosures about the change in fair value by cause (eg changes in credit risk, interest or foreign currency exchange rates or liquidity).
- 147 The reconciliation of the change in the fair values of instruments that contain significant unobservable inputs can be a useful disclosure. Such information might help users understand the recognised movements in fair values. However, there are some potential issues with the disclosure of a reconciliation. For example:
- (a) the changes in fair values of instruments might be due to movements in both observable and unobservable inputs. Therefore, disclosing the entire movement does not provide users with the information they might be most interested in; that is, the movement due to changes in unobservable inputs.
  - (b) many instruments are hedged by instruments in a higher level of the fair value hierarchy. Disclosing movements in the carrying amount of an item in a lower level of the hierarchy might be misleading if the entity does not show the extent to which those movements correlate with undisclosed movements in the hedging instrument classified in a higher level.
  - (c) the reconciliation might be difficult for some entities to compile and report, depending on their organisational structure and internal reporting process.
- 148 An entity considers whether, on balance, the usefulness of the information outweighs these potential issues. An entity could make the disclosures more meaningful by providing detail about the actual value changes caused by unobservable inputs. For example, this could be achieved by:
- (a) disclosing those movements that are economically hedged by movements in instruments in other levels of the hierarchy (eg using a valuation technique with inputs based on observable market data).
  - (b) separating the movements into those related to observable and unobservable inputs, if this information can be determined.
- 149 An entity might not always be able to separate movements into those due to observable inputs and those due to unobservable inputs (eg due to interdependencies between the different inputs). If an entity wants to disclose such information, it will typically select whatever method provides the most meaningful information to users about movements in fair values caused by unobservable inputs. If possible, separating this information into individual unobservable inputs might allow an entity to provide more information about those inputs that are the most difficult to identify and verify, and which therefore require the highest degree of judgement.
- 150 Figure 13 contains an example of a disclosure of a reconciliation of movements in fair values measured using a valuation technique based significantly on inputs that are unobservable. The example provides additional disclosure about observable and hedged movements.



**The Goldman Sachs Group, Inc.**  
**FORM 10-Q for the quarterly period ended May 30, 2008**  
**Extract from Note 3 – Financial Instruments**

**Derivative Contracts**

The net unrealized loss on level 3 derivative contracts of \$447 million for the three months ended May 2008 and net unrealized gain of \$1.90 billion for the six months ended May 2008 was primarily attributable to observable changes in underlying credit spreads (which are level 2 inputs). Level 3 gains and losses on derivative contracts should be considered in the context of the following factors:

- A derivative contract with level 1 and/or level 2 inputs is classified as a level 3 financial instrument in its entirety if it has at least one significant level 3 input.
- If there is one significant level 3 input, the entire gain or loss from adjusting only observable inputs (i.e., level 1 and level 2) is still classified as level 3.
- Gains or losses that have been reported in level 3 resulting from changes in level 1 or level 2 inputs are frequently offset by gains or losses attributable to instruments classified within Level 1 or level 2 or by cash instruments reported in level 3 of the fair value hierarchy.

The tables below set forth a summary of changes in the fair value of the firm's level 3 financial assets and financial liabilities for the three and six months ended May 2008 and May 2007. The tables reflect gains and losses, including gains and losses on financial assets and financial liabilities that were transferred to level 3 during the period, for the three and six month periods for all financial assets and financial liabilities categorized as level 3 as of May 2008 and May 2007, respectively. The tables do not include gains or losses that were reported in level 3 in prior periods for instruments that were sold or transferred out of level 3 prior to the end of the period presented.

**Level 3 Financial Assets and Financial Liabilities**  
**Three Months Ended May 2008**

	Cash Instruments - Assets	Cash Instruments - Liabilities	Derivative Contracts - Net	Unsecured Short-Term Borrowings	Other Secured Financings	Unsecured Long-Term Borrowings
				(in millions)		
Balance, beginning of period	\$71,373	\$(977)	\$9,394	\$(3,839)	\$-	\$(1,247)
Realized gains/(losses)	624 <sup>(1)</sup>	13 <sup>(4)</sup>	(8) <sup>(4)</sup>	(134) <sup>(4)</sup>	(6) <sup>(4)</sup>	(4) <sup>(4)</sup>
Unrealized gains/(losses) relating to instruments still held at the reporting date	(944) <sup>(1)</sup>	- <sup>(4)</sup>	(447) <sup>(4) (5)</sup>	(18) <sup>(4)</sup>	-	(71) <sup>(4)</sup>
Purchases, issuances and settlements	(2,330) <sup>(2)</sup>	301	68	357	18	(603)
Transfers in and/or out of level 3	(9,052) <sup>(2) (3)</sup>	82	(2,499) <sup>(6)</sup>	(203)	(892)	(77)
Balance, end of period	\$59,671	\$(581)	\$6,508	\$(3,837)	\$(880)	\$(2,002)

## Part 2: Disclosure

Level 3 Financial Assets and Financial Liabilities Three Months Ended May 2007						
	Cash Instruments - Assets	Cash Instruments - Liabilities	Derivative Contracts - Net	Unsecured Short-Term Borrowings	Other Secured Financings	Unsecured Long-Term Borrowings
	(in millions)					
Balance, beginning of period	\$37,848	\$(224)	341	\$(4,836)	\$-	\$(777)
Realized gains/(losses)	587 (1)	9 (4)	483 (4)	71 (4)	-	(4) (4)
Unrealized gains/(losses) relating to instruments still held at the reporting date	98 (1)	9 (4)	(204) (4) (5)	(189) (4)	-	2 (4)
Purchases, issuances and settlements	5,499	(452)	(920)	(946)	-	(123)
Transfers in and/or out of level 3	1,109 (7)	(191)	699	393	-	399
Balance, end of period	\$45,141	\$(849)	\$399	\$(5,507)	\$-	\$(503)

(1) The aggregate amounts include approximately \$(1.02) billion and \$696 million reported in "Trading and principal investments" and "Interest income," respectively, in the condensed consolidated statements of earnings for the three months ended May 2008. The aggregate amounts include approximately \$355 million and \$330 million reported in "Trading and principal investments" and "Interest income," respectively, in the condensed consolidated statements of earnings for the three months ended May 2007.

(2) The aggregate amount includes a decrease of \$8.80 billion due to full and partial dispositions.

(3) Includes transfers of loans and securities backed by commercial real estate, and bank loans and bridge loans to level 2 within the fair value hierarchy, reflecting improved price transparency for these financial instruments, largely as a result of partial dispositions.

(4) Substantially all is reported in "Trading and principal investments" in the condensed consolidated statements of earnings.

(5) Principally resulted from changes in level 2 inputs.

(6) Principally reflects transfers to level 2 within the fair value hierarchy of mortgage-related derivative assets due to improved transparency of the correlation inputs used to value these financial instruments.

(7) Principally reflects transfers from level 2 within the fair value hierarchy of loans and securities backed by commercial and residential real estate and private equity investments, reflecting reduced price transparency for these financial instruments.

**Figure 13 A disclosure of the reconciliation of movements in fair values measured using a valuation technique based significantly on inputs that are unobservable. The example provides information about observable and hedged movements.**

## Disclosure of unobservable inputs

- 151 An important element in understanding a fair value measurement is understanding the assumptions made and inputs applied in the valuation technique. A description of the source of the inputs gives users a better understanding of the valuation. For assumptions and inputs that are unobservable or difficult to estimate, more detailed and transparent disclosure allows users to form educated judgements as to the reasonableness of the valuation methodologies and the assumptions applied.
- 152 An area of focus for users of financial statements is the extent to which significant unobservable inputs are used in valuation techniques when measuring fair values, the source of those inputs and the range of different possible values which

management could reasonably have chosen. An entity might use many different unobservable inputs in applying its valuation techniques for different instruments and disclosure of all inputs might result in lengthy and superfluous disclosure. However, disclosure of those inputs that are most difficult to estimate, and which could have a significant effect on the fair values recognised, provides information about the risks of the instruments and the representational faithfulness of the fair values reported. Furthermore, a description of the controls for the entity's verification of the inputs provides users with information to understand better the representational faithfulness of the fair value measurements.

- 153 Disclosure about unobservable inputs might be provided by class of instrument or by risk type or both, but should meet the objective of helping users understand the techniques used and the judgements made in measuring fair values.

**The effect of reasonably possible alternative assumptions**

- 154 An entity is required to disclose the effect of a reasonably possible alternative assumption, if this would change the fair value significantly. Disclosures about the effect of reasonably possible alternative unobservable inputs is likely to provide useful and transparent information if the analysis is provided at a disaggregated level. For example, the disclosure might be useful if it is presented by class or risk type rather than as a single disclosure that encompasses all financial instruments measured at fair value using unobservable inputs.
- 155 The considerations about the level of aggregation and granularity that apply to this disclosure are similar to those for other disclosures about fair value measurement. Furthermore, enhancing the disclosure through reflecting the effect of any offsetting or hedged positions in the disclosure might be helpful to users because this reflects the overall valuation risk of the entity.
- 156 Disclosures about the effect of reasonably possible alternative unobservable inputs could be enhanced through disclosure of how the effect has been calculated, allowing users to understand better the disclosure and what it represents. An entity might consider explaining:
- (a) what the entity regards as a reasonably possible alternative assumption.
  - (b) why the assumptions used in the fair value measurement were selected rather than the reasonably possible alternative(s).
  - (c) how the entity calculated the effect disclosed.
  - (d) whether the disclosure takes into account any offsetting or hedged positions.
  - (e) whether the effect disclosed represents the movement in a single input or a movement in all unobservable inputs.

- 157 Figure 14 contains an example of a disclosure about reasonably possible alternative assumptions.

**UBS AG**  
**Q2 2008 Financial Reporting**  
**Extract from Note 10b – Valuation Techniques and Inputs**

**US super senior RMBS CDO**

Write-downs of super senior US RMBS [residential mortgage backed securities] CDO [collateralised debt obligation] positions (subprime, and to a lesser extent Alt-A and prime) during the second quarter of 2008 reflected worsening remittance data as well as declines in the ABX indices to which the valuation model is calibrated. No significant changes to the RMBS CDO valuation model occurred during this period, although approximately two thirds (by market value) of the super senior RMBS CDOs are now valued using the liquidation-based approach described above. The two primary unobservable factors in the valuation model are the loss projections on the underlying mortgage pools and the risk premium component of the discount rate. To assess the sensitivity of the super senior RMBS CDO valuations to the loss projections, a 10% adverse change in all mortgage pool loss projections (that is, from 25% loss to 27.5% loss, where 25% is the average ABX implied loss rate for sub-prime mortgage pools) across all relevant RMBS collateral is considered. Holding all other elements of the model constant, this adverse change in loss projections would result in an additional write-down of approximately USD 436 million (CHF 445 million). The current risk premium assumption in the valuation model is 11.1% (implying a discount rate of Libor plus 11.1%). An increase in the risk premium of 100 basis points, holding other aspects of the model constant, is estimated to result in an additional write-down of approximately USD 92 million (CHF 94 million). These estimates are intended to convey information on the sensitivity of the model-based valuation to unobservable inputs; they are not intended as risk assessments. In the interest of completeness, these sensitivity estimates include both RMBS super senior CDOs valued using the valuation model and those valued on a liquidation basis (corresponding figures for the model-only population are USD 131 million (CHF 134 million) and USD 39 million (CHF 40 million).

**Figure 14 A disclosure about reasonably possible alternative assumptions.**

- 158 Figure 15 contains an example of a disclosure about valuation techniques used, the observability of assumptions used in the valuation techniques and the effect of reasonably possible alternative assumptions.

**Santander**  
**Annual Report 2007**  
**Extract from Note 2 – Accounting Policies and Measurement Bases**

	Fair Value Calculated Using	Valuation Techniques	Main Assumptions (*)	Reasonable assumptions (***)	
				More Favorable	Less Favorable
<b>ASSETS:</b>					
<b>Financial assets</b>					
<b>held for trading</b>	<b>82,490</b>			<b>103</b>	<b>(88)</b>
Loans and advances to credit institutions	12,295	Present Value Method	Observable market data	-	-
Loans and advances to customers	23,704	Present Value Method	Observable market data	-	-
Debt and equity interests	2,087	Present Value Method	Observable market data	-	-
Trading derivatives	44,404			103	(88)
<i>Swaps (**)</i>	28,312	Present Value Method	Models	61	(46)
<i>Exchange rate     options</i>	375	Black-Scholes Model	Models	1	(1)
<i>Interest rate options</i>	8,683	Black-Scholes Model	Models,		
<i>Interest rate futures</i>	1,039	HJM Model Present Value Method	Correlation Observable market data	24	(16)
<i>Index and securities     options</i>	3,799	Present Value Method	Dividend, Correlation, Models	17	(25)
<i>Investment futures</i>	28	Present Value Method	Observable market data	-	-
<i>Other</i>	2,168	N/A	N/A	-	-
<b>Hedging derivatives</b>	<b>3,063</b>			-	-
<i>Swaps</i>	2,614	Present Value Method	Observable market data	-	-
<i>Exchange rate     options</i>	359	Black-Scholes Model	Observable market data	-	-
<i>Interest rate options</i>	86	Black-Scholes Model	Observable market data	-	-
<i>Other</i>	4	N/A	N/A	-	-
<b>Other financial assets at fair value through profit or loss</b>	<b>17,884</b>				
Loans and advances to credit institutions	6,865	Present Value Method	Observable market data	-	-
Loans and advances to customers	8,022	Present Value Method	Observable market data	-	-
Debt and equity interests	2,997	Present Value Method	Observable market data	-	-
<b>Available-for-sale financial assets</b>	<b>6,441</b>				
Debt and equity interests	6,441	Present Value Method	Observable market data	-	-

	Fair Value Calculated Using	Valuation Techniques	Main Assumptions (*)	Reasonable assumptions (***)	
				More Favorable	Less Favorable
<b>LIABILITIES:</b>					
<b>Financial liabilities held for trading</b>	<b>98,307</b>			<b>108</b>	<b>(90)</b>
Deposits from credit institutions	23,254	Present Value Method	Observable market data	-	-
Customer deposits	27,992	Present Value Method	Observable market data	-	-
Trading derivatives	47,061			108	(90)
<i>Swaps (**)</i>	39,204	Present Value Method	Models	90	(69)
<i>Exchange rate options</i>	907	Black-Scholes Model	Models	2	(2)
<i>Interest rate options</i>	1,325	Black-Scholes Model HJM	Models, Correlation	4	(2)
<i>Index and securities options</i>	2,527	Black-Scholes Model	Dividend, Correlation, Models	12	(17)
<i>Forward purchase and sale contracts</i>	1,411	N/A	N/A	-	-
<i>Interest rate and investment futures</i>	1,100	Present Value Method	Observable market data	-	-
<i>Other</i>	587	N/A	N/A	-	-
<b>Hedging derivatives</b>	<b>4,024</b>			-	-
<i>Swaps</i>	3,924	Present Value Method	Observable market data	-	-
<i>Exchange rate options</i>	27	Black-Scholes Model	Observable market data	-	-
<i>Interest rate options</i>	73	Black-Scholes Model	Observable market data	-	-
<b>Other financial liabilities at fair value through profit or loss</b>	<b>33,039</b>	Present Value Method	Observable market data	-	-
<b>Liabilities under insurance contracts</b>	<b>7,356</b>	<b>Note 15 [not shown]</b>		-	-
<b>TOTAL</b>	<b>252,604</b>			<b>211</b>	<b>(178)</b>

(\*) The use of observable market data assumes that the markets in which the Group operates are operationally efficient and, hence that such data is meaningful. The following are the principal assumptions used in the valuation of the financial instruments listed in the table above that are measured by means of internal models in which non-observable market data is utilized:

- Correlation: assumptions regarding the correlation between the value of market-traded assets and those non-traded assets are based on the historical correlation between the impact of adverse movements in market data and the corresponding valuation of the associated non-traded assets. The valuation will vary depending on whether a more or less conservative degree of correlation scenario is selected.
- Dividend: estimates of the dividends used as inputs in internal models are based on the expected dividend distributions from the issuer companies. Since the expected dividend may change or differ depending on the source of the dividend data (generally either historic data or market consensus for option pricing), and the dividend policy of companies may vary, the measurement is adapted to arrive at the best estimate of a reasonable level of expected dividend within more or less conservative scenarios.
- Models: assumptions include estimates based on market liquidity and other factors. For example to take into account market liquidity or where the financial instrument is part of a new or developing market where the standard calculation methodology and estimates available may result in a less accurate valuation of the instrument at that time.

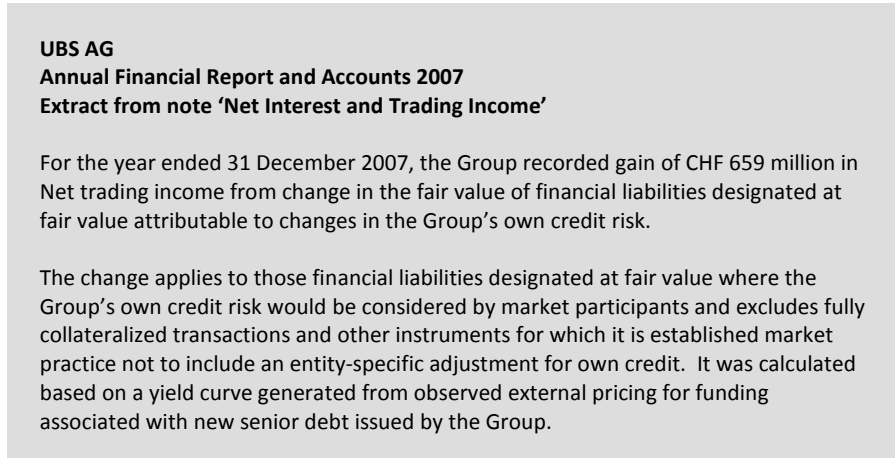
(\*\*) Includes credit risk derivatives with a fair value of EUR 2.5 million (for assets) and EUR 3.3 million (for liabilities) recognized on the consolidated balance sheet. These are measured by means of the Standard Gaussian Copula model, discussed above.

(\*\*\*) Reflects the potential effect on the valuation of financial instruments of a change in the principal assumptions for non-observable market data (correlation, dividend, models) to other reasonable assumptions if one percentage point more (or less) favorable assumptions are used.

**Figure 15 A disclosure about valuation techniques used, the observability of assumptions used in the valuation techniques and the effect of reasonably possible alternative assumptions.**

## Disclosure of changes in own credit risk

- 159 For financial liabilities designated as at fair value through profit or loss, an entity is required to disclose the amount of any change in a liability's fair value that is attributable to changes in the entity's own credit risk.
- 160 The disclosure of such information helps users understand how any changes in the entity's own credit risk have affected profit or loss. However, this amount alone does not help users understand how the amount was calculated or the uncertainty about that amount.
- 161 Given the scrutiny applied to the movements in the fair values of liabilities due to changes in an entity's own credit risk, in addition to the required disclosure of how the amount was calculated, disclosing the source of the inputs used to calculate the movement provides transparency about the uncertainty of that amount.
- 162 There is no current requirement to disclose the change in the fair value of derivative instruments that is attributable to changes in the entity's own credit risk. Changes in own credit risk can lead to significant gains and losses being recognised in the statement of comprehensive income. As a result, there is a high level of scrutiny of such gains and losses and users might find helpful the disclosure of the effect of a change in the fair value of a derivative instrument that is attributable to changes in the entity's own credit risk.
- 163 Figure 16 contains an example of a disclosure about changes in an entity's own credit risk.



**Figure 16 A disclosure of changes in an entity's own credit risk**

- 164 Figure 17 contains an example of a disclosure about changes in an entity's own credit risk.

**Citigroup Inc.**  
**Annual Financial Report and Accounts 2007**  
**Extract from note 'Fair-Value Elections'**

The fair value of liabilities for which the fair-value option was elected was impacted by the widening of the Company's credit spread. The estimated change in the fair value of these liabilities due to such changes in the Company's own credit risk (or instrument-specific credit risk) was a gain of \$888 million for the 12 months ended December 31, 2007. Changes in fair value resulting from changes in instrument-specific credit risk were estimated by incorporating the Company's current observable credit spreads into the relevant valuation technique used to value each liability as described above.

***Figure 17 A disclosure of changes in an entity's own credit risk***





## Part 3: Appendix

## Measurement guidance in IAS 39

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### Fair value measurement considerations

**48 In determining the fair value of a financial asset or a financial liability for the purpose of applying this Standard, IAS 32 or IFRS 7, an entity shall apply paragraphs AG69–AG82 of Appendix A.**

48A The best evidence of fair value is quoted prices in an active market. If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. The objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique. The chosen valuation technique makes maximum use of market inputs and relies as little as possible on entity-specific inputs. It incorporates all factors that market participants would consider in setting a price and is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data.

### Fair value measurement considerations (paragraphs 48–49)

AG69 Underlying the definition of fair value is a presumption that an entity is a going concern without any intention or need to liquidate, to curtail materially the scale of its operations or to undertake a transaction on adverse terms. Fair value is not, therefore, the amount that an entity would receive or pay in a forced transaction, involuntary liquidation or distress sale. However, fair value reflects the credit quality of the instrument.

AG70 This Standard uses the terms 'bid price' and 'asking price' (sometimes referred to as 'current offer price') in the context of quoted market prices, and the term 'the bid-ask spread' to include only transaction costs. Other adjustments to arrive at fair value (eg for counterparty credit risk) are not included in the term 'bid-ask spread'.

### *Active market: quoted price*

AG71 A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. Fair value is defined in terms of a price agreed by a willing buyer and a willing seller in an arm's length transaction. The objective of determining fair value for a financial instrument that is traded in an active market is to arrive at the price at which a transaction would occur at the end of the reporting period in that instrument (ie without modifying or repackaging the instrument) in the most advantageous active market to which the entity has immediate access. However, the entity

adjusts the price in the more advantageous market to reflect any differences in counterparty credit risk between instruments traded in that market and the one being valued. The existence of published price quotations in an active market is the best evidence of fair value and when they exist they are used to measure the financial asset or financial liability.

- AG72 The appropriate quoted market price for an asset held or liability to be issued is usually the current bid price and, for an asset to be acquired or liability held, the asking price. When an entity has assets and liabilities with offsetting market risks, it may use mid-market prices as a basis for establishing fair values for the offsetting risk positions and apply the bid or asking price to the net open position as appropriate. When current bid and asking prices are unavailable, the price of the most recent transaction provides evidence of the current fair value as long as there has not been a significant change in economic circumstances since the time of the transaction. If conditions have changed since the time of the transaction (eg a change in the risk-free interest rate following the most recent price quote for a corporate bond), the fair value reflects the change in conditions by reference to current prices or rates for similar financial instruments, as appropriate. Similarly, if the entity can demonstrate that the last transaction price is not fair value (eg because it reflected the amount that an entity would receive or pay in a forced transaction, involuntary liquidation or distress sale), that price is adjusted. The fair value of a portfolio of financial instruments is the product of the number of units of the instrument and its quoted market price. If a published price quotation in an active market does not exist for a financial instrument in its entirety, but active markets exist for its component parts, fair value is determined on the basis of the relevant market prices for the component parts.
- AG73 If a rate (rather than a price) is quoted in an active market, the entity uses that market-quoted rate as an input into a valuation technique to determine fair value. If the market-quoted rate does not include credit risk or other factors that market participants would include in valuing the instrument, the entity adjusts for those factors.

***No active market: valuation technique***

- AG74 If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique.
- AG75 The objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations. Fair value is estimated on the basis of the results of a valuation technique that makes maximum use of market inputs, and relies as little as possible on entity-specific inputs. A valuation technique would be expected to arrive at a realistic estimate of the fair value if (a) it reasonably reflects how the market could be expected to price the instrument and (b) the inputs to the valuation technique reasonably represent market expectations and measures of the risk-return factors inherent in the financial instrument.

- AG76 Therefore, a valuation technique (a) incorporates all factors that market participants would consider in setting a price and (b) is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data. An entity obtains market data consistently in the same market where the instrument was originated or purchased. The best evidence of the fair value of a financial instrument at initial recognition is the transaction price (ie the fair value of the consideration given or received) unless the fair value of that instrument is evidenced by comparison with other observable current market transactions in the same instrument (ie without modification or repackaging) or based on a valuation technique whose variables include only data from observable markets.
- AG76A The subsequent measurement of the financial asset or financial liability and the subsequent recognition of gains and losses shall be consistent with the requirements of this Standard. The application of paragraph AG76 may result in no gain or loss being recognised on the initial recognition of a financial asset or financial liability. In such a case, IAS 39 requires that a gain or loss shall be recognised after initial recognition only to the extent that it arises from a change in a factor (including time) that market participants would consider in setting a price.
- AG77 The initial acquisition or origination of a financial asset or incurrence of a financial liability is a market transaction that provides a foundation for estimating the fair value of the financial instrument. In particular, if the financial instrument is a debt instrument (such as a loan), its fair value can be determined by reference to the market conditions that existed at its acquisition or origination date and current market conditions or interest rates currently charged by the entity or by others for similar debt instruments (ie similar remaining maturity, cash flow pattern, currency, credit risk, collateral and interest basis). Alternatively, provided there is no change in the credit risk of the debtor and applicable credit spreads after the origination of the debt instrument, an estimate of the current market interest rate may be derived by using a benchmark interest rate reflecting a better credit quality than the underlying debt instrument, holding the credit spread constant, and adjusting for the change in the benchmark interest rate from the origination date. If conditions have changed since the most recent market transaction, the corresponding change in the fair value of the financial instrument being valued is determined by reference to current prices or rates for similar financial instruments, adjusted as appropriate, for any differences from the instrument being valued.
- AG78 The same information may not be available at each measurement date. For example, at the date that an entity makes a loan or acquires a debt instrument that is not actively traded, the entity has a transaction price that is also a market price. However, no new transaction information may be available at the next measurement date and, although the entity can determine the general level of market interest rates, it may not know what level of credit or other risk market participants would consider in pricing the instrument on that date. An entity may not have information from recent transactions to determine the appropriate credit spread over the basic interest rate to use in determining a discount rate for a present value computation. It would be reasonable to assume, in the absence of evidence to the contrary, that no changes have taken place in the spread that existed at the date the loan was made. However, the entity would be expected to

make reasonable efforts to determine whether there is evidence that there has been a change in such factors. When evidence of a change exists, the entity would consider the effects of the change in determining the fair value of the financial instrument.

- AG79 In applying discounted cash flow analysis, an entity uses one or more discount rates equal to the prevailing rates of return for financial instruments having substantially the same terms and characteristics, including the credit quality of the instrument, the remaining term over which the contractual interest rate is fixed, the remaining term to repayment of the principal and the currency in which payments are to be made. Short-term receivables and payables with no stated interest rate may be measured at the original invoice amount if the effect of discounting is immaterial.

***No active market: equity instruments***

- AG80 The fair value of investments in equity instruments that do not have a quoted market price in an active market and derivatives that are linked to and must be settled by delivery of such an unquoted equity instrument (see paragraphs 46(c) and 47) is reliably measurable if (a) the variability in the range of reasonable fair value estimates is not significant for that instrument or (b) the probabilities of the various estimates within the range can be reasonably assessed and used in estimating fair value.
- AG81 There are many situations in which the variability in the range of reasonable fair value estimates of investments in equity instruments that do not have a quoted market price and derivatives that are linked to and must be settled by delivery of such an unquoted equity instrument (see paragraphs 46(c) and 47) is likely not to be significant. Normally it is possible to estimate the fair value of a financial asset that an entity has acquired from an outside party. However, if the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed, an entity is precluded from measuring the instrument at fair value.

***Inputs to valuation techniques***

- AG82 An appropriate technique for estimating the fair value of a particular financial instrument would incorporate observable market data about the market conditions and other factors that are likely to affect the instrument's fair value. The fair value of a financial instrument will be based on one or more of the following factors (and perhaps others).
- (a) *The time value of money (ie interest at the basic or risk-free rate).* Basic interest rates can usually be derived from observable government bond prices and are often quoted in financial publications. These rates typically vary with the expected dates of the projected cash flows along a yield curve of interest rates for different time horizons. For practical reasons, an entity may use a well-accepted and readily observable general rate, such as LIBOR or a swap rate, as the benchmark rate. (Because a rate such as LIBOR is not the risk-free interest rate, the credit risk adjustment appropriate to the particular financial instrument is determined on the basis of its credit risk in relation to the credit risk in this benchmark rate.) In some countries, the central government's bonds may carry a significant credit risk and may not provide a stable benchmark basic interest rate for instruments denominated in that currency. Some entities in these countries may have a better credit standing and a lower borrowing rate

than the central government. In such a case, basic interest rates may be more appropriately determined by reference to interest rates for the highest rated corporate bonds issued in the currency of that jurisdiction.

- (b) *Credit risk.* The effect on fair value of credit risk (ie the premium over the basic interest rate for credit risk) may be derived from observable market prices for traded instruments of different credit quality or from observable interest rates charged by lenders for loans of various credit ratings.
- (c) *Foreign currency exchange prices.* Active currency exchange markets exist for most major currencies, and prices are quoted daily in financial publications.
- (d) *Commodity prices.* There are observable market prices for many commodities.
- (e) *Equity prices.* Prices (and indexes of prices) of traded equity instruments are readily observable in some markets. Present value based techniques may be used to estimate the current market price of equity instruments for which there are no observable prices.
- (f) *Volatility (ie magnitude of future changes in price of the financial instrument or other item).* Measures of the volatility of actively traded items can normally be reasonably estimated on the basis of historical market data or by using volatilities implied in current market prices.
- (g) *Prepayment risk and surrender risk.* Expected prepayment patterns for financial assets and expected surrender patterns for financial liabilities can be estimated on the basis of historical data. (The fair value of a financial liability that can be surrendered by the counterparty cannot be less than the present value of the surrender amount—see paragraph 49.)
- (h) *Servicing costs for a financial asset or a financial liability.* Costs of servicing can be estimated using comparisons with current fees charged by other market participants. If the costs of servicing a financial asset or financial liability are significant and other market participants would face comparable costs, the issuer would consider them in determining the fair value of that financial asset or financial liability. It is likely that the fair value at inception of a contractual right to future fees equals the origination costs paid for them, unless future fees and related costs are out of line with market comparables.

### Credit risk of liabilities

- BC88 The Board considered comments on the Exposure Draft that disagreed with the view that, in applying the fair value option to financial liabilities, an entity should recognise income as a result of deteriorating credit quality (and a loan expense as a result of improving credit quality). Commentators noted that it is not useful to report lower liabilities when an entity is in financial difficulty precisely because its debt levels are too high, and that it would be difficult to explain to users of financial statements the reasons why income would be recognised when a liability's creditworthiness deteriorates. These comments suggested that fair value should exclude the effects of changes in the instrument's credit risk.
- BC89 However, the Board noted that because financial statements are prepared on a going concern basis, credit risk affects the value at which liabilities could be repurchased or settled. Accordingly, the fair value of a financial liability reflects the credit risk relating to that liability. Therefore, it decided to include credit risk

relating to a financial liability in the fair value measurement of that liability for the following reasons:

- (a) entities realise changes in fair value, including fair value attributable to the liability's credit risk, for example, by renegotiating or repurchasing liabilities or by using derivatives;
- (b) changes in credit risk affect the observed market price of a financial liability and hence its fair value;
- (c) it is difficult from a practical standpoint to exclude changes in credit risk from an observed market price; and
- (d) the fair value of a financial liability (ie the price of that liability in an exchange between a knowledgeable, willing buyer and a knowledgeable, willing seller) on initial recognition reflects its credit risk. The Board believes that it is inappropriate to include credit risk in the initial fair value measurement of financial liabilities, but not subsequently.

BC90 The Board also considered whether the component of the fair value of a financial liability attributable to changes in credit quality should be specifically disclosed, separately presented in the income statement, or separately presented in equity. The Board decided that whilst separately presenting or disclosing such changes might be difficult in practice, disclosure of such information would be useful to users of financial statements and would help alleviate the concerns expressed. Therefore, it decided to include in IAS 32<sup>6</sup> a disclosure to help identify the changes in the fair value of a financial liability that arise from changes in the liability's credit risk. The Board believes this is a reasonable proxy for the change in fair value that is attributable to changes in the liability's credit risk, in particular when such changes are large, and will provide users with information with which to understand the profit or loss effect of such a change in credit risk.

<sup>6</sup> In August 2005, the IASB relocated all disclosures relating to financial instruments to IFRS 7 *Financial Instruments: Disclosures*.

BC91 The Board decided to clarify that this issue relates to the credit risk of the financial liability, rather than the creditworthiness of the entity. The Board noted that this more appropriately describes the objective of what is included in the fair value measurement of financial liabilities.

BC92 The Board also noted that the fair value of liabilities secured by valuable collateral, guaranteed by third parties or ranking ahead of virtually all other liabilities is generally unaffected by changes in the entity's creditworthiness.

## Disclosure requirements in IFRSs

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### **IFRS 7 Financial Instruments: Disclosures**

- 1 The objective of this IFRS is to require entities to provide disclosures in their financial statements that enable users to evaluate:
  - (a) the significance of financial instruments for the entity's financial position and performance; and
  - (b) the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the reporting date, and how the entity manages those risks.
- ...
- 6 When this IFRS requires disclosures by class of financial instrument, an entity shall group financial instruments into classes that are appropriate to the nature of the information disclosed and that take into account the characteristics of those financial instruments. An entity shall provide sufficient information to permit reconciliation to the line items presented in the statement of financial position.
- 7 An entity shall disclose information that enables users of its financial statements to evaluate the significance of financial instruments for its financial position and performance.
- ...
- 9 If the entity has designated a loan or receivable (or group of loans or receivables) as at fair value through profit or loss, it shall disclose:
  - (a) the maximum exposure to credit risk (see paragraph 36(a)) of the loan or receivable (or group of loans or receivables) at the end of the reporting period.
  - (b) the amount by which any related credit derivatives or similar instruments mitigate that maximum exposure to credit risk.
  - (c) the amount of change, during the period and cumulatively, in the fair value of the loan or receivable (or group of loans or receivables) that is attributable to changes in the credit risk of the financial asset determined either:
    - (i) as the amount of change in its fair value that is not attributable to changes in market conditions that give rise to market risk; or
    - (ii) using an alternative method the entity believes more faithfully represents the amount of change in its fair value that is attributable to changes in the credit risk of the asset.

Changes in market conditions that give rise to market risk include changes in an observed (benchmark) interest rate, commodity price, foreign exchange rate or index of prices or rates.



- (d) the amount of the change in the fair value of any related credit derivatives or similar instruments that has occurred during the period and cumulatively since the loan or receivable was designated.
- 10 If the entity has designated a financial liability as at fair value through profit or loss in accordance with paragraph 9 of IAS 39, it shall disclose:
- (a) the amount of change, during the period and cumulatively, in the fair value of the financial liability that is attributable to changes in the credit risk of that liability determined either:
    - (i) as the amount of change in its fair value that is not attributable to changes in market conditions that give rise to market risk (see Appendix B, paragraph B4); or
    - (ii) using an alternative method the entity believes more faithfully represents the amount of change in its fair value that is attributable to changes in the credit risk of the liability.

Changes in market conditions that give rise to market risk include changes in a benchmark interest rate, the price of another entity's financial instrument, a commodity price, a foreign exchange rate or an index of prices or rates. For contracts that include a unit-linking feature, changes in market conditions include changes in the performance of the related internal or external investment fund.
  - (b) the difference between the financial liability's carrying amount and the amount the entity would be contractually required to pay at maturity to the holder of the obligation.
- 11 The entity shall disclose:
- (a) the methods used to comply with the requirements in paragraphs 9(c) and 10(a).
  - (b) if the entity believes that the disclosure it has given to comply with the requirements in paragraph 9(c) or 10(a) does not faithfully represent the change in the fair value of the financial asset or financial liability attributable to changes in its credit risk, the reasons for reaching this conclusion and the factors it believes are relevant.
- ...
- 25 Except as set out in paragraph 29, for each class of financial assets and financial liabilities (see paragraph 6), an entity shall disclose the fair value of that class of assets and liabilities in a way that permits it to be compared with its carrying amount.
- 26 In disclosing fair values, an entity shall group financial assets and financial liabilities into classes, but shall offset them only to the extent that their carrying amounts are offset in the statement of financial position.
- 27 An entity shall disclose:

- (a) the methods and, when a valuation technique is used, the assumptions applied in determining fair values of each class of financial assets or financial liabilities. For example, if applicable, an entity discloses information about the assumptions relating to prepayment rates, rates of estimated credit losses, and interest rates or discount rates.
  - (b) whether fair values are determined, in whole or in part, directly by reference to published price quotations in an active market or are estimated using a valuation technique (see paragraphs AG71–AG79 of IAS 39).
  - (c) whether the fair values recognised or disclosed in the financial statements are determined in whole or in part using a valuation technique based on assumptions that are not supported by prices from observable current market transactions in the same instrument (ie without modification or repackaging) and not based on available observable market data. For fair values that are recognised in the financial statements, if changing one or more of those assumptions to reasonably possible alternative assumptions would change fair value significantly, the entity shall state this fact and disclose the effect of those changes. For this purpose, significance shall be judged with respect to profit or loss, and total assets or total liabilities, or, when changes in fair value are recognised in equity, total equity.
  - (d) if (c) applies, the total amount of the change in fair value estimated using such a valuation technique that was recognised in profit or loss during the period.
- 28 If the market for a financial instrument is not active, an entity establishes its fair value using a valuation technique (see paragraphs AG74–AG79 of IAS 39). Nevertheless, the best evidence of fair value at initial recognition is the transaction price (ie the fair value of the consideration given or received), unless conditions described in paragraph AG76 of IAS 39 are met. It follows that there could be a difference between the fair value at initial recognition and the amount that would be determined at that date using the valuation technique. If such a difference exists, an entity shall disclose, by class of financial instrument:
- (a) its accounting policy for recognising that difference in profit or loss to reflect a change in factors (including time) that market participants would consider in setting a price (see paragraph AG76A of IAS 39); and
  - (b) the aggregate difference yet to be recognised in profit or loss at the beginning and end of the period and a reconciliation of changes in the balance of this difference.
- 29 Disclosures of fair value are not required:
- (a) when the carrying amount is a reasonable approximation of fair value, for example, for financial instruments such as short-term trade receivables and payables;
  - (b) for an investment in equity instruments that do not have a quoted market price in an active market, or derivatives linked to such equity instruments, that is measured at cost in accordance with IAS 39 because its fair value cannot be measured reliably; or

- (c) for a contract containing a discretionary participation feature (as described in IFRS 4) if the fair value of that feature cannot be measured reliably.
- 30 In the cases described in paragraph 29(b) and (c), an entity shall disclose information to help users of the financial statements make their own judgements about the extent of possible differences between the carrying amount of those financial assets or financial liabilities and their fair value, including:
- (a) the fact that fair value information has not been disclosed for these instruments because their fair value cannot be measured reliably;
  - (b) a description of the financial instruments, their carrying amount, and an explanation of why fair value cannot be measured reliably;
  - (c) information about the market for the instruments;
  - (d) information about whether and how the entity intends to dispose of the financial instruments; and
  - (e) if financial instruments whose fair value previously could not be reliably measured are derecognised, that fact, their carrying amount at the time of derecognition, and the amount of gain or loss recognised.
- 31 An entity shall disclose information that enables users of its financial statements to evaluate the nature and extent of risks arising from financial instruments to which the entity is exposed at the end of the reporting period.
- ...
- B4 If an entity designates a financial liability as at fair value through profit or loss, paragraph 10(a) requires it to disclose the amount of change in the fair value of the financial liability that is attributable to changes in the liability's credit risk. Paragraph 10(a)(i) permits an entity to determine this amount as the amount of change in the liability's fair value that is not attributable to changes in market conditions that give rise to market risk. If the only relevant changes in market conditions for a liability are changes in an observed (benchmark) interest rate, this amount can be estimated as follows:
- (a) First, the entity computes the liability's internal rate of return at the start of the period using the observed market price of the liability and the liability's contractual cash flows at the start of the period. It deducts from this rate of return the observed (benchmark) interest rate at the start of the period, to arrive at an instrument-specific component of the internal rate of return.
  - (b) Next, the entity calculates the present value of the cash flows associated with the liability using the liability's contractual cash flows at the end of the period and a discount rate equal to the sum of (i) the observed (benchmark) interest rate at the end of the period and (ii) the instrument-specific component of the internal rate of return as determined in (a).
  - (c) The difference between the observed market price of the liability at the end of the period and the amount determined in (b) is the change in fair value that is

not attributable to changes in the observed (benchmark) interest rate. This is the amount to be disclosed.

This example assumes that changes in fair value arising from factors other than changes in the instrument's credit risk or changes in interest rates are not significant. If the instrument in the example contains an embedded derivative, the change in fair value of the embedded derivative is excluded in determining the amount to be disclosed in accordance with paragraph 10(a).

## IAS 1 Presentation of Financial Statements

...

- 17 In virtually all circumstances, an entity achieves a fair presentation by compliance with applicable IFRSs. A fair presentation also requires an entity:

...

- (c) to provide additional disclosures when compliance with the specific requirements in IFRSs is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance.

...

- 29 An entity shall present separately each material class of similar items. An entity shall present separately items of a dissimilar nature or function unless they are immaterial.

...

- 113 An entity shall, as far as practicable, present notes in a systematic manner. An entity shall cross-reference each item in the statements of financial position and of comprehensive income, in the separate income statement (if presented), and in the statements of changes in equity and of cash flows to any related information in the notes.

...

- 116 An entity may present notes providing information about the basis of preparation of the financial statements and specific accounting policies as a separate section of the financial statements.

...

- 129 An entity presents the disclosures in paragraph 125 in a manner that helps users of financial statements to understand the judgements that management makes about the future and about other sources of estimation uncertainty. The nature and extent of the information provided vary according to the nature of the assumption and other circumstances. Examples of the types of disclosures an entity makes are:

- (a) the nature of the assumption or other estimation uncertainty;
- (b) the sensitivity of carrying amounts to the methods, assumptions and estimates underlying their calculation, including the reasons for the sensitivity;
- (c) the expected resolution of an uncertainty and the range of reasonably possible outcomes within the next financial year in respect of the carrying amounts of the assets and liabilities affected; and
- (d) an explanation of changes made to past assumptions concerning those assets and liabilities, if the uncertainty remains unresolved.

- 130 This Standard does not require an entity to disclose budget information or forecasts in making the disclosures in paragraph 125.
- 131 Sometimes it is impracticable to disclose the extent of the possible effects of an assumption or another source of estimation uncertainty at the end of the reporting period. In such cases, the entity discloses that it is reasonably possible, on the basis of existing knowledge, that outcomes within the next financial year that are different from the assumption could require a material adjustment to the carrying amount of the asset or liability affected. In all cases, the entity discloses the nature and carrying amount of the specific asset or liability (or class of assets or liabilities) affected by the assumption.
- 132 The disclosures in paragraph 122 of particular judgements that management made in the process of applying the entity's accounting policies do not relate to the disclosures of sources of estimation uncertainty in paragraph 125.
- 133 Other IFRSs require the disclosure of some of the assumptions that would otherwise be required in accordance with paragraph 125. For example, IAS 37 requires disclosure, in specified circumstances, of major assumptions concerning future events affecting classes of provisions. IFRS 7 requires disclosure of significant assumptions the entity uses in estimating the fair values of financial assets and financial liabilities that are carried at fair value. IAS 16 requires disclosure of significant assumptions that the entity uses in estimating the fair values of revalued items of property, plant and equipment.

## IAS 34 Interim Financial Reporting

...

- 6 In the interest of timeliness and cost considerations and to avoid repetition of information previously reported, an entity may be required to or may elect to provide less information at interim dates as compared with its annual financial statements. This Standard defines the minimum content of an interim financial report as including condensed financial statements and selected explanatory notes. The interim financial report is intended to provide an update on the latest complete set of annual financial statements. Accordingly, it focuses on new activities, events, and circumstances and does not duplicate information previously reported.
- 7 Nothing in this Standard is intended to prohibit or discourage an entity from publishing a complete set of financial statements (as described in IAS 1) in its interim financial report, rather than condensed financial statements and selected explanatory notes. Nor does this Standard prohibit or discourage an entity from including in condensed interim financial statements more than the minimum line items or selected explanatory notes as set out in this Standard. The recognition and measurement guidance in this Standard applies also to complete financial statements for an interim period, and such statements would include all of the disclosures required by this Standard (particularly the selected note disclosures in paragraph 16) as well as those required by other Standards.

...

- 15 A user of an entity's interim financial report will also have access to the most recent annual financial report of that entity. It is unnecessary, therefore, for the notes to an interim financial report to provide relatively insignificant updates to the information that was already reported in the notes in the most recent annual report. At an interim date, an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the entity since the end of the last annual reporting period is more useful.
- 16 **An entity shall include the following information, as a minimum, in the notes to its interim financial statements, if material and if not disclosed elsewhere in the interim financial report. The information shall normally be reported on a financial year-to-date basis. However, the entity shall also disclose any events or transactions that are material to an understanding of the current interim period:**
- (a) a statement that the same accounting policies and methods of computation are followed in the interim financial statements as compared with the most recent annual financial statements or, if those policies or methods have been changed, a description of the nature and effect of the change;
  - (b) explanatory comments about the seasonality or cyclicity of interim operations;
  - (c) the nature and amount of items affecting assets, liabilities, equity, net income, or cash flows that are unusual because of their nature, size, or incidence;
  - (d) the nature and amount of changes in estimates of amounts reported in prior interim periods of the current financial year or changes in

- estimates of amounts reported in prior financial years, if those changes have a material effect in the current interim period;
- (e) issuances, repurchases, and repayments of debt and equity securities;
  - (f) dividends paid (aggregate or per share) separately for ordinary shares and other shares;
  - (g) the following segment information (disclosure of segment information is required in an entity's interim financial report only if IFRS 8 Operating Segments requires that entity to disclose segment information in its annual financial statements):
    - (i) revenues from external customers, if included in the measure of segment profit or loss reviewed by the chief operating decision maker or otherwise regularly provided to the chief operating decision maker;
    - (ii) intersegment revenues, if included in the measure of segment profit or loss reviewed by the chief operating decision maker or otherwise regularly provided to the chief operating decision maker;
    - (iii) a measure of segment profit or loss;
    - (iv) total assets for which there has been a material change from the amount disclosed in the last annual financial statements;
    - (v) a description of differences from the last annual financial statements in the basis of segmentation or in the basis of measurement of segment profit or loss;
    - (vi) a reconciliation of the total of the reportable segments' measures of profit or loss to the entity's profit or loss before tax expense (tax income) and discontinued operations. However, if an entity allocates to reportable segments items such as tax expense (tax income), the entity may reconcile the total of the segments' measures of profit or loss to profit or loss after those items. Material reconciling items shall be separately identified and described in that reconciliation;
  - (h) material events subsequent to the end of the interim period that have not been reflected in the financial statements for the interim period;
  - (i) the effect of changes in the composition of the entity during the interim period, including business combinations, obtaining or losing control of subsidiaries and long-term investments, restructurings, and discontinued operations. In the case of business combinations, the entity shall disclose the information required by IFRS 3 Business Combinations; and
  - (j) changes in contingent liabilities or contingent assets since the end of the last annual reporting period.
- 17 Examples of the kinds of disclosures that are required by paragraph 16 are set out below. Individual Standards and Interpretations provide guidance regarding disclosures for many of these items:
- (a) the write-down of inventories to net realisable value and the reversal of such a write-down;



- (b) recognition of a loss from the impairment of property, plant and equipment, intangible assets, or other assets, and the reversal of such an impairment loss;
- (c) the reversal of any provisions for the costs of restructuring;
- (d) acquisitions and disposals of items of property, plant and equipment;
- (e) commitments for the purchase of property, plant and equipment;
- (f) litigation settlements;
- (g) corrections of prior period errors;
- (h) [deleted]
- (i) any loan default or breach of a loan agreement that has not been remedied on or before the end of the reporting period; and
- (j) related party transactions.

## Excerpts from the exposure draft Improving Disclosures about Financial Instruments (Proposed Amendments to IFRS 7)

Paragraph 27 is amended (new text is underlined and deleted text is struck through). Paragraphs 27A-27C are added. Paragraphs 25, 26 and 28-30 are not proposed for amendment but are included here for ease of reference.

### Significance of financial instruments for financial position and performance

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#### Other disclosures

##### Fair value

- 25 Except as set out in paragraph 29, for each class of financial assets and financial liabilities (see paragraph 6), an entity shall disclose the fair value of that class of assets and liabilities in a way that permits it to be compared with its carrying amount.
- 26 In disclosing fair values, an entity shall group financial assets and financial liabilities into classes, but shall offset them only to the extent that their carrying amounts are offset in the statement of financial position.
- 27 An entity shall disclose for each class of financial instruments:
- (a) the methods and, when a valuation technique is used, the assumptions applied in determining fair values of each class of financial assets or financial liabilities. For example, if applicable, an entity discloses information about the assumptions relating to prepayment rates, rates of estimated credit losses, and interest rates or discount rates. If there has been a change in valuation technique, the entity shall disclose that change and the reasons for making it.
  - ~~(b) whether fair values are determined, in whole or in part, directly by reference to published price quotations in an active market or are estimated using a valuation technique (see paragraphs AG71–AG79 of IAS 39).~~
  - (c) whether the fair values recognised or disclosed in the financial statements ~~are determined in whole or in part using a valuation technique based on assumptions that are not supported by prices from observable current market transactions in the same instrument (ie without modification or repackaging) and not based on available observable market data. For fair values that are recognised in the financial statements, if changing one or more of those assumptions to reasonably possible alternative assumptions would change fair value significantly, the entity shall state this fact and disclose the effect of those changes. For this purpose, significance shall be judged with respect to profit or loss, and total assets or total liabilities, or,~~

~~when changes in fair value are recognised in other comprehensive income, total equity.~~

- ~~(d) — if (c) applies, the total amount of the change in fair value estimated using such a valuation technique that was recognised in profit or loss during the period.~~

27A To make the disclosures required by paragraphs 27B and 27C an entity shall classify fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy shall have the following levels:

- (a) quoted prices in active markets for the same instrument (ie without modification or repackaging) (Level 1);
- (b) quoted prices in active markets for similar assets or liabilities or other valuation techniques for which all significant inputs are based on observable market data (Level 2); and
- (c) valuation techniques for which any significant input is not based on observable market data (Level 3).

For the purposes of the fair value hierarchy, a significant input is an input that is significant to the fair value measurement in its entirety. Assessing the significance of a particular input requires judgement.

27B For fair value measurements recognised in the statement of financial position an entity shall disclose for each class of financial instruments:

- (a) the level in the fair value hierarchy into which the fair value measurements are categorised in their entirety.
- (b) for fair value measurements using valuation techniques for which any significant input is not based on observable market data (Level 3), a reconciliation from the beginning balances to the ending balances, disclosing separately changes during the period attributable to the following:
  - (i) total gains or losses for the period (realised and unrealised) recognised in profit or loss, and a description of where they are presented in the statement of comprehensive income;
  - (ii) total gains or losses recognised in other comprehensive income;
  - (iii) purchases, sales, issues and settlements (net); and
  - (iv) transfers into and/or out of Level 3 (eg transfers attributable to changes in the observability of market data).
- (c) the total amount of unrealised gains or losses for the period in (b)(i) included in profit or loss for those assets and liabilities still held at the end of the reporting period and a description of where those unrealised gains or losses are presented in the statement of comprehensive income.

- (d) for fair value measurements using valuation techniques for which any significant input is not based on observable market data (Level 3), if changing one or more of those inputs to reasonably possible alternative assumptions would change fair value significantly, the entity shall state that fact and disclose the effect of those changes for each class of financial instrument. For this purpose, significance shall be judged with respect to profit or loss, and total assets or total liabilities, or, when changes in fair value are recognised in other comprehensive income, total equity.
- (e) any movements between the levels of the fair value hierarchy (in addition to those disclosed to comply with paragraph 27B(b)(iv)). The entity shall also disclose the reasons for all movements between any of the levels of the hierarchy.

An entity shall provide the information required by this paragraph in tabular format unless another format is more appropriate. In addition, an entity shall also disclose any other information that is necessary for users to evaluate the quantitative information disclosed (eg information about those instruments in one level of the hierarchy that are hedged by instruments in another level of the hierarchy).

- 27C An entity shall disclose the fair value, by level of the fair value hierarchy in which the financial instruments are categorised in their entirety, of the financial instruments or the classes of financial instruments that are not measured at fair value in the statement of financial position.
- 28 If the market for a financial instrument is not active, an entity establishes its fair value using a valuation technique (see paragraphs AG74–AG79 of IAS 39). Nevertheless, the best evidence of fair value at initial recognition is the transaction price (ie the fair value of the consideration given or received), unless conditions described in paragraph AG76 of IAS 39 are met. It follows that there could be a difference between the fair value at initial recognition and the amount that would be determined at that date using the valuation technique. If such a difference exists, an entity shall disclose, by class of financial instrument:
  - (a) its accounting policy for recognising that difference in profit or loss to reflect a change in factors (including time) that market participants would consider in setting a price (see paragraph AG76A of IAS 39); and
  - (b) the aggregate difference yet to be recognised in profit or loss at the beginning and end of the period and a reconciliation of changes in the balance of this difference.
- 29 Disclosures of fair value are not required:
  - (a) when the carrying amount is a reasonable approximation of fair value, for example, for financial instruments such as short-term trade receivables and payables;
  - (b) for an investment in equity instruments that do not have a quoted market price in an active market, or derivatives linked to such equity instruments, that is measured at cost in accordance with IAS 39 because its fair value cannot be measured reliably; or

- (c) for a contract containing a discretionary participation feature (as described in IFRS 4) if the fair value of that feature cannot be measured reliably.
- 30 In the cases described in paragraph 29(b) and (c), an entity shall disclose information to help users of the financial statements make their own judgements about the extent of possible differences between the carrying amount of those financial assets or financial liabilities and their fair value, including:
- (a) the fact that fair value information has not been disclosed for these instruments because their fair value cannot be measured reliably;
  - (b) a description of the financial instruments, their carrying amount, and an explanation of why fair value cannot be measured reliably;
  - (c) information about the market for the instruments;
  - (d) information about whether and how the entity intends to dispose of the financial instruments; and
  - (e) if financial instruments whose fair value previously could not be reliably measured are derecognised, that fact, their carrying amount at the time of derecognition, and the amount of gain or loss recognised.

...

### **Effective date and transition**

- 43A An entity shall apply amended paragraphs 27, 39 and B11 and paragraphs 27A—27C and B11A—B11E for annual periods beginning on or after 1 July 2009. Earlier application is permitted. If an entity applies those paragraphs for an earlier period, it shall disclose that fact.

## Guidance on implementing IFRS 7 *Financial Instruments: Disclosures*

After paragraph IG13 a heading and paragraphs IG13A and IG13B are added.  
Paragraph IG14 is not proposed for amendment but is included here for ease of reference.

### Significance of financial instruments for financial position and performance (paragraphs 7–30, B4 and B5)

#### Fair value (paragraphs 27–28)

IG13A IFRS 7 requires disclosures about the level in the fair value hierarchy in which fair value measurements are categorised for assets and liabilities measured in the statement of financial position. A tabular format is required unless another format is more appropriate. An entity might disclose the following for assets to comply with paragraph 27B(a). (Disclosures by class of financial instruments would also be required, but are not included in the following example.)

Assets measured at fair value				
Description	31 Dec 20X2	Fair value measurement at end of the reporting period based on:		
		quoted prices in active markets for the same instrument (Level 1)	valuation techniques for which all significant inputs are based on observable market data (Level 2)	valuation techniques for which any significant input is not based on observable market data (Level 3)
		CU million	CU million	CU million
Financial assets at fair value through profit or loss	60	25	15	20
Available-for-sale financial assets	75	65	-	10
Total	135	90	15	30

IG13B IFRS 7 requires a reconciliation from beginning to ending balances for those assets and liabilities that are measured in the statement of financial position at fair value based on a valuation technique for which any significant input is not based on observable market data (Level 3). A tabular format is required unless another

format is more appropriate. An entity might disclose the following for assets to comply with paragraph 27B(b).

Assets measured at fair value based on valuation techniques for which any significant input is not based on observable market data (Level 3)			
	Fair value measurement at reporting date		
	Financial assets at fair value through profit or loss	Available-for-sale financial assets	Total
	CU million	CU million	CU million
Beginning balance	14	11	25
Total gains or losses			
in profit or loss	11	(3)	8
in other comprehensive income	4		4
Purchases, issues and settlements (net)	(7)	2	(5)
Transfers into and/or out of Level 3	(2)	-	(2)
Ending balance	20	10	30
Total unrealised gains or losses for the period included in profit or loss for assets held at the end of the reporting period	7	-	7
Gains or losses (realised and unrealised) included in profit or loss for the period (above) are presented in trading income and in other income as follows:			
	Trading income	Other income	
Total gains or losses included in profit or loss for the period	11	(3)	
Change in unrealised gains or losses for assets held at the end of the reporting period	7	-	

- IG14 The fair value at initial recognition of financial instruments that are not traded in active markets is determined in accordance with paragraph AG76 of IAS 39. However, when, after initial recognition, an entity will use a valuation technique that incorporates data not obtained from observable markets, there may be a difference between the transaction price at initial recognition and the amount determined at initial recognition using that valuation technique. In these circumstances, the difference will be recognised in profit or loss in subsequent periods in accordance with IAS 39 and the entity's accounting policy. Such recognition reflects changes in factors (including time) that market participants would consider in setting a price (see paragraph AG76A of IAS 39). Paragraph 28 requires disclosures in these circumstances. An entity might disclose the following to comply with paragraph 28:

### Background

On 1 January 20X1 an entity purchases for CU15 million financial assets that are not traded in an active market. The entity has only one class of such financial assets. The transaction price of CU15 million is the fair value at initial recognition. After initial recognition, the entity will apply a valuation technique to establish the financial assets' fair value. This valuation technique includes variables other than data from observable markets. At initial recognition, the same valuation technique would have resulted in an amount of CU14 million, which differs from fair value by CU1 million. The entity has existing differences of CU5 million at 1 January 20X1.

### Application of requirements

The entity's 20X2 disclosure would include the following:

### Accounting policies

The entity uses the following valuation technique to determine the fair value of financial instruments that are not traded in an active market: [description of technique, not included in this example]. Differences may arise between the fair value at initial recognition (which, in accordance with IAS 39, is generally the transaction price) and the amount determined at initial recognition using the valuation technique. Any such differences are [description of the entity's accounting policy].

### In the notes to the financial statements

As discussed in note X, the entity uses [name of valuation technique] to measure the fair value of the following financial instruments that are not traded in an active market. However, in accordance with IAS 39, the fair value of an instrument at inception is generally the transaction price. If the transaction price differs from the amount determined at inception using the valuation technique, that difference is [description of the entity's accounting policy].

The differences yet to be recognised in profit or loss are as follows:

	31 Dec 20X2 CU million	31 Dec 20X1 CU million
Balance at beginning of year	5.3	5.0
New transactions	–	1.0
Amounts recognised in profit or loss during the year	(0.7)	(0.8)
Other increases	–	0.2
Other decreases	(0.1)	(0.1)
Balance at end of year	4.5	5.3

...



## Basis for Conclusions

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This Basis for Conclusions accompanies, but is not part of, the proposed amendments to IFRS 7.

### Introduction

- BC1 This Basis for Conclusions summarises the International Accounting Standards Board's considerations in proposing amendments to IFRS 7 *Financial Instruments: Disclosures*. Individual Board members gave greater weight to some factors than to others.

### Fair value measurement disclosures

- BC2 Statement of Financial Accounting Standards No. 157 *Fair Value Measurements* (SFAS 157) issued by the US Financial Accounting Standards Board (FASB) requires disclosures that are based on a three-level fair value hierarchy for the inputs used in valuation techniques to measure fair value.
- BC3 The Board was asked by some users of financial statements to include similar disclosure requirements in IFRS 7 to provide more information about the relative reliability of the inputs to fair value measurements.
- BC4 The Board proposes requiring disclosures for financial instruments on the basis of a fair value hierarchy. The Board concluded that such a hierarchy would improve comparability between entities about the effects of fair value measurements as well as increasing the convergence of IFRSs and US generally accepted accounting principles (GAAP).
- BC5 The Board considered using the fair value hierarchy set out in SFAS 157. However, because its own fair value measurement project is not yet completed, the Board decided to propose a fair value hierarchy for disclosures that is similar to that in SFAS 157 but uses the terminology in IAS 39 *Financial Instruments: Recognition and Measurement* and IFRS 7 until the fair value measurement project is completed.
- BC6 The Board also noted that the proposed fair value hierarchy does not affect any measurement or recognition requirements of other standards. In particular, the Board noted that the recognition of gains or losses at inception of a financial instrument (as required by paragraph AG76 of IAS 39) would not change as a result of the proposed fair value hierarchy.
- BC7 The Board proposes requiring additional disclosures for instruments with fair value measurements that are in Level 3 of the fair value hierarchy. These disclosures would inform users of financial statements about the effects of those fair value measurements that use the most subjective inputs.

...

### **Effective date and transition**

BC13 The Board aims to set an effective date of annual periods beginning on or after 1 July 2009 for amendments resulting from these proposals. The Board noted that, although the effective date of IFRSs and amendments to IFRSs is usually 6 – 18 months after issue, the urgent need for enhanced disclosures about financial instruments demands earlier application.

**M. 381**

**From:** Kelly, Brian [BKelly@milbank.com]  
**Sent:** Sunday, September 21, 2008 11:34 AM  
**To:** McComiskey, Anne  
**Cc:** Fazio, Michael  
**Subject:** Bar Cap  
**Attachments:** New WinZip File.zip

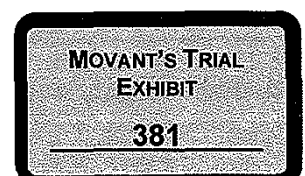
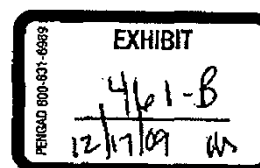
redacted

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HLHZ0011913

**M. 707**

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**From:** Geer, Brad [BGeer@HLHZ.com]  
**Sent:** Sunday, September 28, 2008 6:15 AM  
**To:** ldespins@milbank.com; Fazio, Michael  
**Cc:** cbell@milbank.com; Livanos, Michael  
**Subject:** Re: Barclays Schedules

Yes. We're looking at them. Sched A appears consistent with that which we had last sunday night at weil. So the issue is if they really were only worth the amount that was agreed to between leh and bar, or if they were worth more. We can price a fairly big portion of the securities but there are some that we won't know on sched A. Those that we have looked at seem to suggest that they're worth more than implied by the negotiated mark in the deal, which amount isn't shown in detail on any schedule. I.e The two sides somehow said "that although the detailed schedule A totals to X, it's really on worth Y in the aggregate (because the marks in the system are somehow outdated, which seems odd... ). The diff between X and Y is sveral billion.

-----Original Message-----

From: Despins, Luc <LDespins@milbank.com>  
To: Fazio, Michael; Geer, Brad  
CC: Bell, Crayton L. <CBell@milbank.com>  
Sent: Sun Sep 28 05:04:55 2008  
Subject: Barclays Schedules

Brad and Mike, we (finally) received the schedules to the APA on Friday. Did you guys get them? They should be "audited" now because if there is an issue with them we need to speak up now before the trail gets cold!

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